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ILLUSTRATIONS

OF

British Birds,

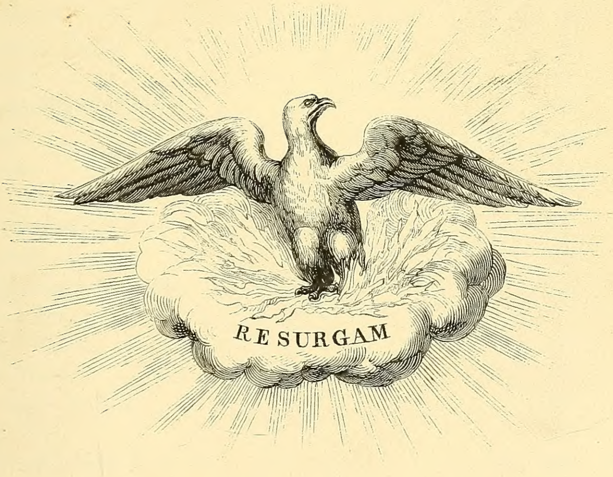
AND THEIR

Eggs.

BY H. L. MEŸER.

VOL. I.

CONTAINING SIXTY PLATES.



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PREFACE

TO THE OCTAVO EDITION OF ILLUSTRATIONS OF BRITISH BIRDS.

The Author cannot permit the first Number of the Octavo copy of his Illustrations of British Birds to come before the Public, without expressing the gratification he has experienced in the distinguished and continued patronage with which the quarto edition of the same work has been honoured, and trusts that the present will meet with equal favour and success.

The present publication will, in all respects, resemble the former, except in size, and no pains will be spared to render it as perfect as possible.

To each Number will be subjoined a Plate of the eggs belonging to the birds represented, as no work on ornithology can be complete without them: the eggs alone are not reduced in size, but are represented, as in the quarto edition, of the natural size.

It has been the Author's wish to represent the birds, as much as possible, in their natural attitudes; for which purpose he has, for some years past, availed himself of every opportunity of studying them in nature, and has also collected, and kept, living subjects from which his drawings have been made, as represented in the quarto publication, now within a few parts of its completion. The book alluded to is, as it were, a guarantee to the Public, that although the present publication is a periodical, the subjects for the whole work are already in the possession of the Author. In the course of the work will be mentioned such modes of treating the different species of birds in captivity, as the Author has found most suitable, in order that the poor prisoners may not suffer more than necessary from the love of those who keep them, either for the sake of their song or of their beauty, and also that the trouble and care thus bestowed upon them may not be without its reward to the possessor.

ILLUSTRATIONS

OF

BRITISH BIRDS.

ORDER. RAPTORES.

VULTURIDÆ.

The members of this branch of the order of Birds of Prey are distinguished by having the head partly divested of feathers, or clothed with a short down; the beak straight at the base and inclining downwards at the tip in both mandibles. Their general aspect is sluggish, and their usual appearance, when at rest, with the wings drooping. They differ in many essential particulars from the more noble birds of prey, especially in their food, which consists, in most of the species, of animals that have fallen a prey to disease or accident, offal, and decaying animal remains. One European species only, the Vultur Barbatus, which approaches in many respects to the habits of the Falconidæ, chooses for its food living subjects.

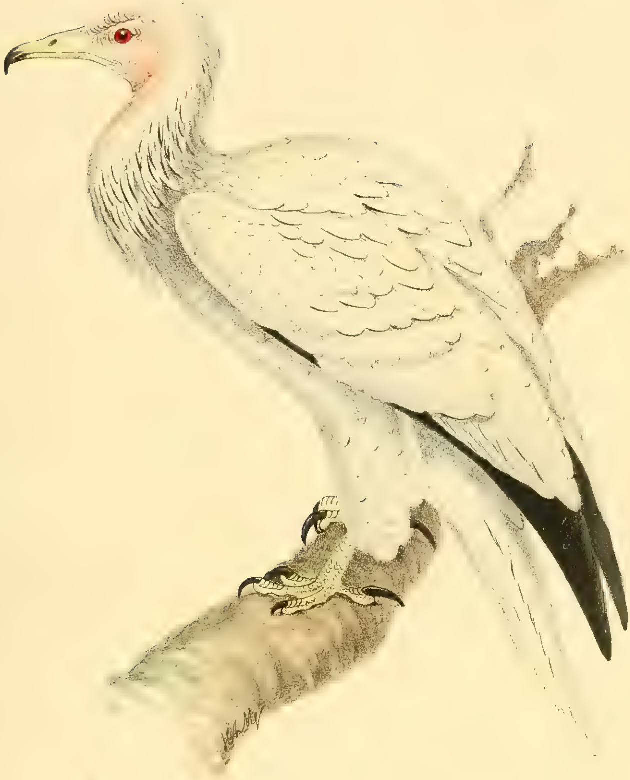
RAPTORES. *VULTURIDÆ.*

PLATE I.

EGYPTIAN VULTURE.

NEOPHRON PERCNOPTERUS. (*Sar.*)

OF the six species of Vulture indigenous to Europe, the Egyptian Vulture represented in the plate is the only one that has been ever taken in Britain, and of this but one example is recorded to have occurred, which was shot at Kilve in Somersetshire in 1825. As this individual was in an undoubtedly wild state, it has been considered by all subsequent writers on British Ornithology as affording a fair opportunity of including it among the rare accidental visitants to these shores. Its true locality is in countries much warmer than our own, in which its services are more needed; and where, by a benevolent dispensation of Providence in adapting its powers and inclinations to the offices it is destined to perform, it removes from the face of the earth those putrifying animal substances which in such climates, without the assistance of these insatiable scavengers, would become noxious to its fellow beings. This species differs from the other European Vultures in its habits, living chiefly in pairs, and not associating like its congeners in flocks. In character the Vulture differs greatly from the other species of Raptores, in being destitute of the courage and boldness by which they are distinguished. In the formation of its feet, also, as Temminck justly remarks, it is not furnished with the powerful weapons of offence with which other rapacious birds are



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provided, its claws being neither adapted to seize nor to carry off its prey, which it consequently devours on the spot. In their flight, which is powerful and long-sustained, Vultures sometimes ascend to a surprising height in circling gyrations. Their sense of vision and organs of smell are very acute. They are said to be extremely timid and easily put to flight; yet they appear susceptible of a sort of domestication, as they are described by African travellers as attaching themselves to individual groups of the natives in the regions they inhabit. Their geographical range is very extensive, specimens perfectly similar having been found in Norway and at the Cape of Good Hope, in Spain and in India. In Africa and Turkey they are more numerous than elsewhere. They have not hitherto been found in America.

The Egyptian Vultures choose for their place of nidification the most inaccessible rocks, and their eggs, according to Le Vaillant, are white. The young birds differ greatly in colour from the adult, their plumage being in the first year deep brown, varied with a lighter tint; this plumage gives place as the bird approaches maturity to feathers of a brownish grey interspersed with white, in which state the iris is brown, and the feet, head, and beak livid. This mottled plumage is succeeded in the mature bird by feathers of spotless white, with exception of the quills, which are in all stages black. The sexes differ only in size, the female being the largest.

In the Egyptian Vulture the beak is long and compressed; the cere is naked, except at the base, where it is covered with a few radiating white hairs, and extends beyond the middle of the beak; the nostrils are placed in the lower part of the cere, open, and of an oval form; the head and upper part of the neck are nearly naked, the skin livid red, interspersed with a few straggling hairs and white down; the lower part of the neck covered with long pointed feathers: the toes are partially scutellated; the middle one has five scales, the outer and hinder toes three; the upper part of the toes and the tarsus are reticulated; the claws black, and but little arched: the tail is graduated, and extends three inches and a quarter beyond the tips of the wings.

The entire length of the Egyptian Vulture is thirty-one inches; the bill is two inches four lines in length; the tarsus three inches; the middle toe three inches, the outer and middle toes united at the base; wing from carpus to tip nineteen inches: the inner claw measures thirteen lines, the hinder nearly the same, and describe one-fourth of a circle; the outer claw is still less arched. The legs and toes are yellow, the iris red.

The specimen mentioned to have been shot in Somersetshire was in immature plumage, but it was thought advisable to choose an adult individual for the subject of the plate, as affording a more perfect representation of the species to which it belongs.

I regret the impossibility of giving a representation of the egg of the Egyptian Vulture, which, although the species is common in so many parts of Europe, Asia, and Africa, remains still unknown. In all probability it bears a resemblance to others of the Vulturidæ. One which I have seen, of a different species of the Vulture tribe, was of a very peculiar form; long and pointed, or, to speak more correctly, narrowed at both ends, white, of a dull surface, somewhat resembling chalk, and rugged.

ORDER. RAPTORES.

FALCONIDÆ.

The birds of prey, placed by ornithologists of all ages at the head of the feathered tribes, are justly entitled to the distinction thus bestowed upon them, by their superior size, their powerful and muscular limbs, their address in pursuing, and courage in attacking their prey. Those under present consideration attack only living subjects. Of the larger kinds some feed chiefly upon quadrupeds, others plunge into the ocean in pursuit of their aquatic prey. Among the smaller kinds some attack reptiles, and others nourish themselves almost entirely upon insect food.

The Falconidæ are further distinguished by the powerful offensive weapons with which they are provided, in the strong and hooked beak, and the claws formed for grasping with resistless tenacity. Their flight is rapid and long sustained, and they rise to a great elevation, from whence they are enabled, by their piercing vision, to detect the creatures suited to their wants.

In most species of this family several years elapse before the perfect adult plumage is attained, during which period many changes take place. These changes are chiefly effected by the annual moult; but partially also, as far as regards the tint of the plumage, by the increasing age of the subject. For instance, the tail of the young male Kestril, which, in the plumage of the first year, is brown barred with black, may be observed to become more and more inclining to grey at the base, as the bird approaches the period of the annual autumnal moult, before the actual discharge of the brown feathers, which distinguish the young, give place to the cinereous grey feathers peculiar to the adult.

The feathers of the young birds of this family are generally more varied with spots and streaks than in the adult, whose plumage is coloured in larger masses ; and it is invariable that in species in which the feathers of the adult are marked with transverse bars, as in the case of the Peregrine Falcon, Goshawk, Honey Buzzard, etc. those parts in the young are marked with longitudinal streaks and rays. In many species among the Falcons, the young of the year resemble each other so much in plumage that it is difficult to distinguish the species to which they belong, except by an accurate observation of their comparative dimensions, and of the colours of the beak, feet, and cere.

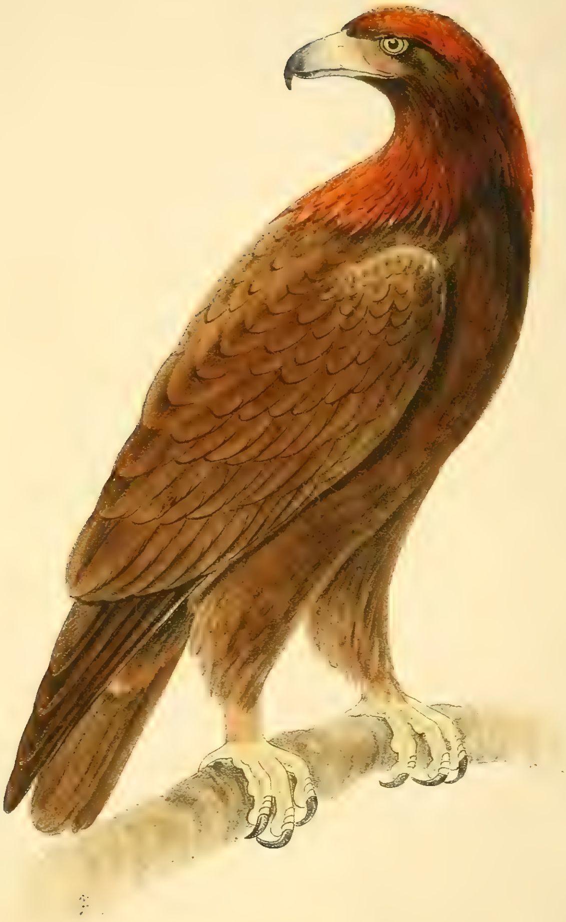

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PLATE II.

GOLDEN EAGLE.

Aquila Chrysaeta. (*Fleming.*)

The Golden Eagle is found in many parts of Europe, inhabiting the Pyrenees, the Tyrol, and the mountainous parts of France and Germany. It is common in Sweden, and is found in forest districts in other parts of the north of Europe. In the British Islands the localities of the Golden Eagle are chiefly confined to Scotland, Ireland, the Orkney and Shetland Isles. It is rare in England, although instances of its capture are recorded to have taken place even in some of the southern and western counties. These can, however, only be considered as of accidental occurrence, since the breeding places are chiefly confined to limits not further south than the Grampians. A geographical survey of the localities above assigned to the Golden Eagle, as well as of those more particularly specified by ornithologists, appear to prove that this species prefers mountains of minor elevation, leaving to a nearly allied species, the Aquila Imperialis of Temminck, the more lofty ranges of the Alps and the mountains of Hungary and Austria.

In America, the arctic and temperate regions are alike the abode of the Golden Eagle. In the old Continent its range does not appear to extend far eastward, and it is not included by Temminck among the birds of Japan.

In perfect adult plumage, the Golden Eagle may at once be distinguished from the other British species, by the rufous feathers that clothe the head and neck, by the dark barred tail, and by the general shade of its plumage.

In young specimens that have not acquired those distinguishing characters, it is less easy to detect the difference between them. Some characters are, however, permanent, and are sufficient, at all ages, to distinguish the species at present under consideration from the White-tailed or Sea Eagle, namely, the feet, which in the Golden Eagle are reticulated, except the last phalanx of each toe, which bears three well-defined scales; while on the contrary, the toes of the White-tailed species are scutellated through the greater part of their length. The tarsi of the Golden Eagle are also covered with feathers; those of the White-tailed are naked some space above the foot; and the tail of the present species is in all stages longer than the wings.

In a state of immaturity the Golden Eagle differs in many particulars of its plumage from the adult; the feathers on the inside of the thighs, the tarsi, and under tail-coverts being white: the same colour prevails also upon the tail, which is white for two-thirds of its length, the third occupying the tips of the feathers being brown. In this state of plumage it is generally known as the Ring-tailed Eagle. As the bird approaches maturity the brown colour prevails more and more, encroaching upon the white portion, of which, in a state of perfect maturity, very little remains. Three or four years usually elapse before the adult plumage is entirely completed: the quill-feathers of the wings and tail are the last that attain maturity. The colours of the cere, bill, and feet are nearly the same in young as in adult individuals, and the colour of the eye only varies from a darker to a lighter and more golden tint.

The Golden Eagle is believed to be untameable in disposition. Its cry is a double note uttered many times in succession, and if not in itself clear and sonorous, is rendered so, when heard in the wild regions it inhabits, by the softening medium of the atmosphere, and harmonises perfectly with the scenes by which it is surrounded, verifying the saying, that in Nature all is harmony. Their food consists of deer, lambs, fawns, and other quadrupeds: they do not reject birds, and are said to regale themselves upon the young of sea fowl. The places chosen for nidification are rocks and lofty forest trees, and the eggs are two or three in number. They appear partial to their old haunts, and have been known to revisit, several years in succession, the same breeding places. By continental authors, the graphic name of Stein-adler is bestowed upon this species in allusion to its favourite haunts.

The egg marked No. 2, figured from a specimen in the British Museum, is the one belonging to this species, and is represented, as well as all others in this work, of the natural size.

The following dimensions are taken from an adult specimen at the British Museum. Beak, from the forehead to the tip, two inches three lines; from the gape to the tip, two inches nine lines; from the front corner of the eye to the tip of the beak, three inches. Space from the eye to the nostril covered with radiating black hairs. Length of the wing, from carpus to tip of the third, which is the longest feather in the wing, twenty-six inches and a half. Expanse of foot, seven inches, including the claws. Hinder claw two inches, describing one-third of a circle; inner claw one inch ten lines, middle claw one inch four lines; the claws are grooved beneath. On the middle toe three or four large scales; on the outer, inner, and hinder, three, on the last joint of each toe; middle toe, including the nail, measures three inches and a half. In this species the gape does not extend further backward than the front corner of the eye.

The drawing from which the plate is taken, is from a living specimen at the Zoological Gardens, Regent's Park.

PLATE III.

WHITE-TAILED EAGLE.

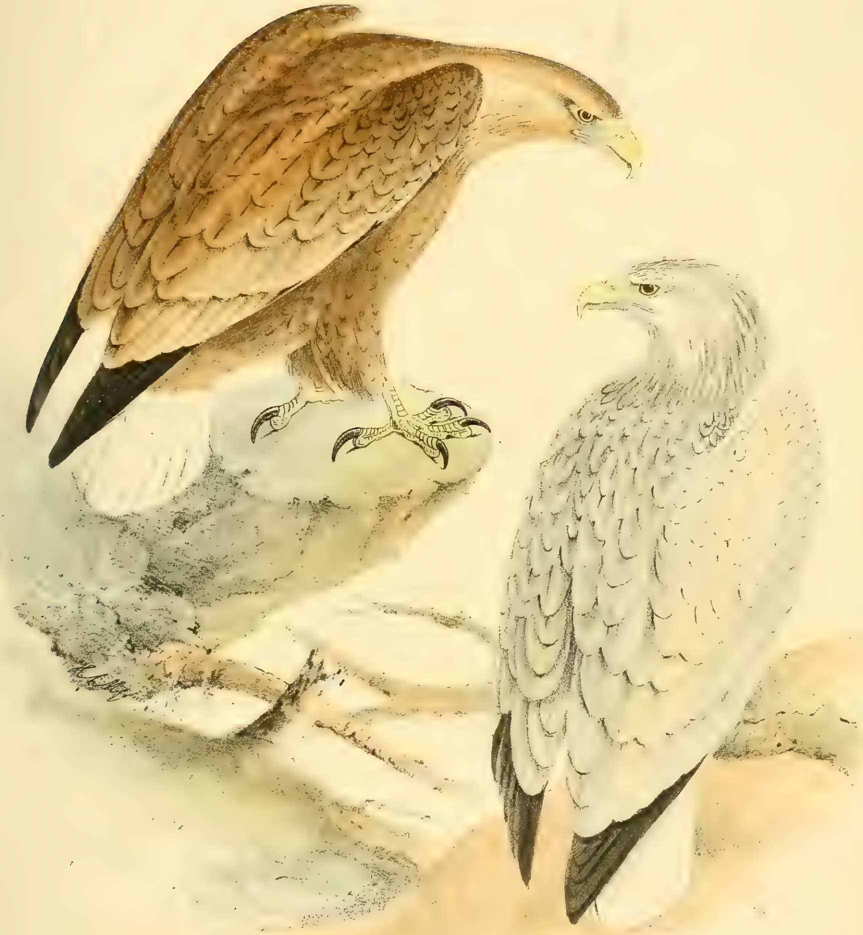
HALIÆËTUS ALBICILLA. (*Sar.*)

This bird is nearly equal in size to the Golden Eagle, but its aspect does not possess the quiet dignity of that species, and the long pointed feathers that cover the head and neck give it rather a haggard appearance.

The White-tailed Eagle is found over all the continent of Europe, principally near the sea-coast and borders of extensive lakes. This species is more common in Britain than the Golden Eagle; and although it is most usually found in the mountainous and rocky parts of the island, many instances are recorded of its appearance in the southern counties during winter, being attracted in that direction, possibly, by the flocks of geese that are driven by the severity of the weather towards the southern rivers. I shall mention only such instances of its capture as have fallen under my own observation.

A specimen was shot on the Thames at Weybridge, in Surry, in Lord Portmore's park some years since; it had alighted on one of the trees in the park, so near the house that it was shot from one of the windows. The mansion alluded to has since been pulled down, and the whole place, occupying one of the loveliest spots upon the river, is going to decay.

Another individual which had been taken alive in a trap in Suffolk, was for some time in the possession of John



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Spicer, Esq. of Esher Place, Surry, from whence it was transferred to Ashley Park, the seat of Sir Henry Fletcher, which bird I have had frequent opportunities of observing. Another specimen, a young female, was shot in Suffolk in the winter of 1831, the dimensions of which will be subjoined.

A circumstance illustrative of the great muscular strength which these birds possess, I had the pleasure of witnessing in one confined in the Zoological Gardens in the Regent's Park, in the severe winter of 1835.

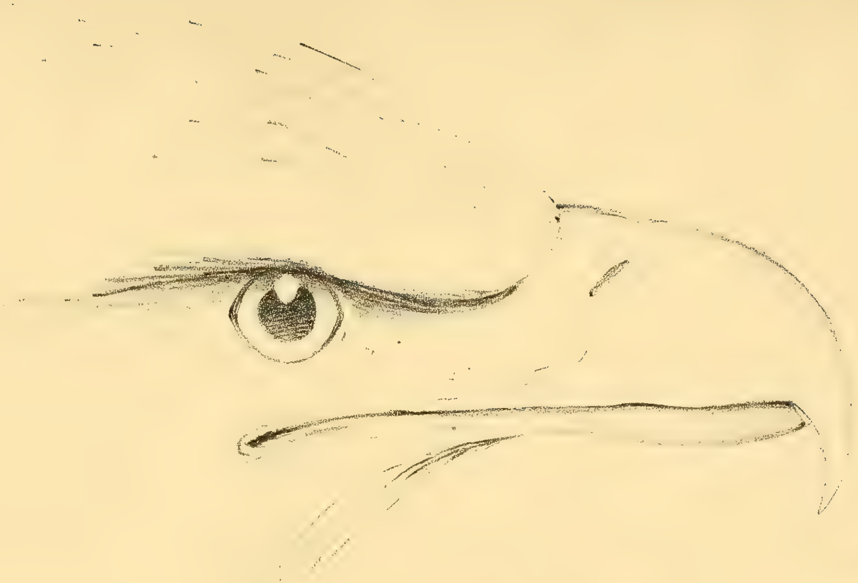
I was employed in completing a sketch of the bird in question, when I observed him make many endeavours with his beak to break the ice that had frozen upon the tub of water placed in his cage. Finding all his efforts to get at the water in this manner were ineffectual, he deliberately mounted the uppermost perch in his cage, then suddenly collecting his strength he rushed down with irresistible force, and striking the ice with his powerful claws dashed it to atoms, throwing the water around him in all directions. After performing this feat of strength and sagacity, he quietly allayed his thirst and returned to his perch. This is no doubt the mode employed by this species in a wild state, to obtain its aquatic food, from the frozen rivers and inland seas it frequents in various parts of the Continent.

The birds represented in this plate are from living specimens in the Zoological Gardens. The brown specimen represents the usual colour of the bird in adult plumage. The pale ash-coloured one is a variety of the White-tailed Eagle brought from Ireland. Various conjectures have been made upon the unusual colour of this bird, that it proceeded from its great age, &c. but none very satisfactory. Whatever may be the cause it has preserved the same colour in its plumage, year after year, ever since its capture. No painting can fitly represent the delicate and beautiful colour of this bird. When its feathers are ruffled, as may be frequently observed, at the pleasure of the creature, a delicate azure blue tint is seen to pervade the basal part of the feathers, which, appearing through the whole transparent texture, imparts to its plumage the singular tint it displays. It is observable that the beak of this individual is rather less in depth at the base than is usual in this species, and the iris yellowish white.

It is believed that many individuals of the White-tailed Eagle migrate to and from different parts of Europe, according to the season, and are observed to be much more plentiful in Britain in winter than at other times. A circumstance that I think corroborative of this migratory habit occurred many years ago at my father's seat near Haarlem :—An Eagle of this species, apparently spent with fatigue, fell into one of the ornamental pieces of water with which gardens in Holland are frequently embellished. Being within sight of the house the descent was observed by several persons, and one domestic, who wanted neither strength nor courage, got into a boat and throwing a sack over its head succeeded in securing his captive ; the bird was too much exhausted to offer much resistance at the time, although a day or two after he made a fierce attack upon a Spanish blood-hound belonging to the establishment, which chanced to approach within his reach. The following dimensions were taken from the bird mentioned in the preceding page,—a female :—

Entire length three feet and a quarter ; expanse from wing to wing seven feet and a quarter ; weight eight pounds and a half ; expanse of foot, including the claws, seven inches ; girth of leg two inches ; length of hind and inner claws one inch and a half ; length of the longest quill-feather twenty inches ; of the longest tail-feather fourteen. The beak is three inches from the forehead to the tip ; three and a half inches from the tip to the gape.

The males are not so large as the females, seldom measuring more than twenty-eight inches in length.



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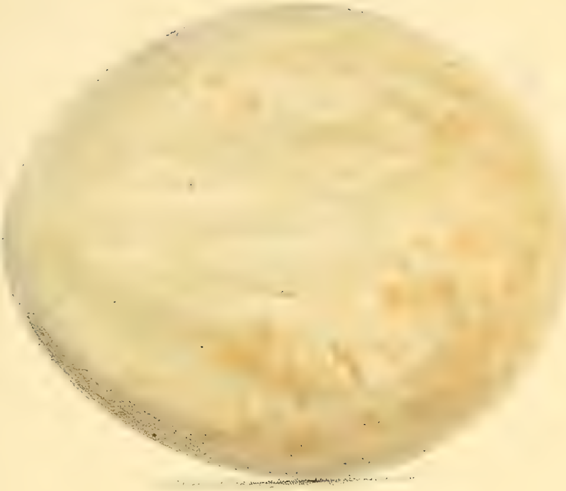
One in the British Museum, supposed from its small size to be a male, measures much less than the female above described. The beak is two inches from the forehead to the tip, and three inches from the tip to the gape; the longest quill-feather of the wing seventeen inches. This specimen resembles very nearly the brown one represented in the plate, with the exception of the upper coverts of the tail, which are dark chocolate, two or three only being a little mottled with white; the tail is pure white. It would thus appear that the upper tail-coverts are the last part of the plumage that attains maturity. Mr. Selby describes a bird in his possession as having "the tail, and upper tail-coverts white;" while Dr. Latham, on the authority of Dr. Heysham, says, that an individual which had been kept in confinement, was "six or seven years before the tail became white." This species goes through many interesting changes of colour in the course of its progress from the nestling to a state of maturity. We are informed by Montague, speaking of some young birds that he had obtained from the county of Down, that "the Eaglets were at first covered with a glossy, dark, murrey-coloured down; on their first moulting they became much darker, particularly about the breast and thighs, the latter almost of a dusky black, and it was not until they were two years old that the base of the bill became yellow." In this dark state of plumage the iris is umber brown; and it is not until the upper tail-coverts begin to assume the white colour, indicative of maturity, that the iris becomes yellow, tinged with burnt sienna.

In this species the lower part of the tarsus is bare of feathers, scutellated in front, the hinder part reticulated; the claws are grooved beneath. The beak is long, straight at the base, and bending from the cere to the tip; the gape extends nearly as far as the hinder corner of the eye.

The egg marked No. 3 belongs to this species. The food of the White-tailed Eagle consists of fish, birds, and quadrupeds.

It is indigenous in England; and the localities chosen for its nest are precipitous cliffs near the sea-coast, or in the vicinity of lakes. The eggs are two in number.



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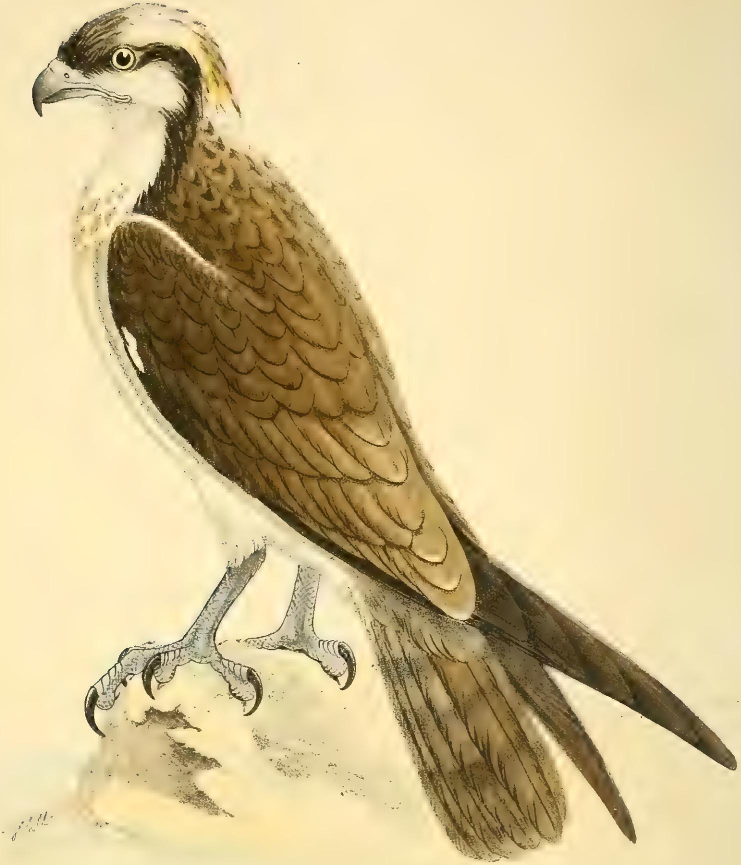

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RAPTORES. *FALCONIDÆ.*

PLATE IV.

OSPREY.

Aquila Hallæëtus. (*Meyer.*)

The Osprey is one of the smallest of the Eagle tribe, and in many of its characters differs from them so essentially as to have induced some recent ornithologists to separate it from the genus Aquila, and form for its reception a new division under the name of Pandion.

The Osprey is met with in the northern parts both of the old and of the new world. His favourite haunt is on the borders of lakes and rivers that abound with fish; he prefers the vicinity of fresh waters, but when driven from them by the frost and ice of winter he resorts to the sea coast, where he can at all times procure a supply sufficient for his wants. The appearance of the Osprey when on the wing is different from that of any other bird: his flight is sedate, with slow and continued motion of the wings, and with his tail slightly depressed. Occasionally he sails for short intervals with wings extended and motionless watching for his prey. When he perceives a fish, he may be observed for some time hovering over it until certain of his quarry; he then rushes down perpendicularly from his elevated station with great rapidity, with wings closed and claws extended, and disappears for a second beneath the splashing waves, the water closing above him. When he again emerges successful, he rises shaking the water from his plumage by a shivering motion, utters a cry of joy and exultation, mounts high in the air, and soars away to a distance to devour his prey. If, however, the fish is too large to be borne away, he will consume it near the water's edge. His manner of holding the fish is always with the head directed forwards, and in this position the peculiar formation of the scales of his feet enable him to hold it so firmly that it is impossible even for prey so slippery to elude his grasp. He sometimes hooks his claws so deeply into the fish that he cannot extricate them until he has consumed it, by carefully picking the flesh from the bones.

Ospreys have been observed to plunge into the water and not to rise again, which leads to the supposition that they occasionally strike their claws into a fish too large for their strength, and consequently are retained involuntarily beneath the water and drowned. The peculiar formation of the feet of the Osprey renders such a conjecture not altogether impossible. The food of this species consists entirely of fish, from a quarter of a pound to two pounds and a half in weight. Trout and carp are preferred, but they will also take other kinds that approach the surface of the water, such as perch, chub, roach, etc. The Osprey does not pursue his prey to any great depth, as may be inferred by his rising almost instantaneously after having plunged in pursuit of it; and he is consequently sometimes observed to emerge unsuccessful, having failed in the attempt to reach his prey.

When at rest, the Osprey may be seen seated upon a rock, mountain, hill, or stone, but he rarely alights upon a tree. They build, however, in forests upon a lofty tree, or resort to buildings, ruins, etc. The nest is composed of an abundance of strong branches, and is of a platform shape. In May the female lays three or four eggs, which are hatched after three weeks' incubation. The young birds are entirely fed with fish, and are supplied by both parents. When, in the act of fishing, the Osprey visits a pond, he crosses it several times at no great elevation; if he perceives no fish, he passes on to another, and continues the pursuit until successful. His times of feeding have been observed to be eight or nine in the morning, and from twelve to two in the afternoon; between these periods he is rarely seen, but sits quietly in a retired place digesting the previous meal. The Osprey is a great enemy to preserves of fish, of carp in particular, and will remain for days and weeks in the neighbourhood of them, if undisturbed; but he is shy and watchful, and does not soon revisit a place where once he has been fired upon. It requires a considerable charge to kill or arrest the progress of an Osprey, as the feathers of this species are remarkable for being closely placed, especially on the under parts, and resemble in this respect, and also in texture, those of water birds; without this provision of nature, their plumage, from frequent submersion, would become so loaded with moisture as to obstruct their flight. Different modes are employed for catching the Osprey: they are sometimes taken by means of a steel spring placed under water, to which a live fish is attached; nets are also employed for the same purpose with a fish for a bait. Young Ospreys may be brought into subjection and taught to catch fish.

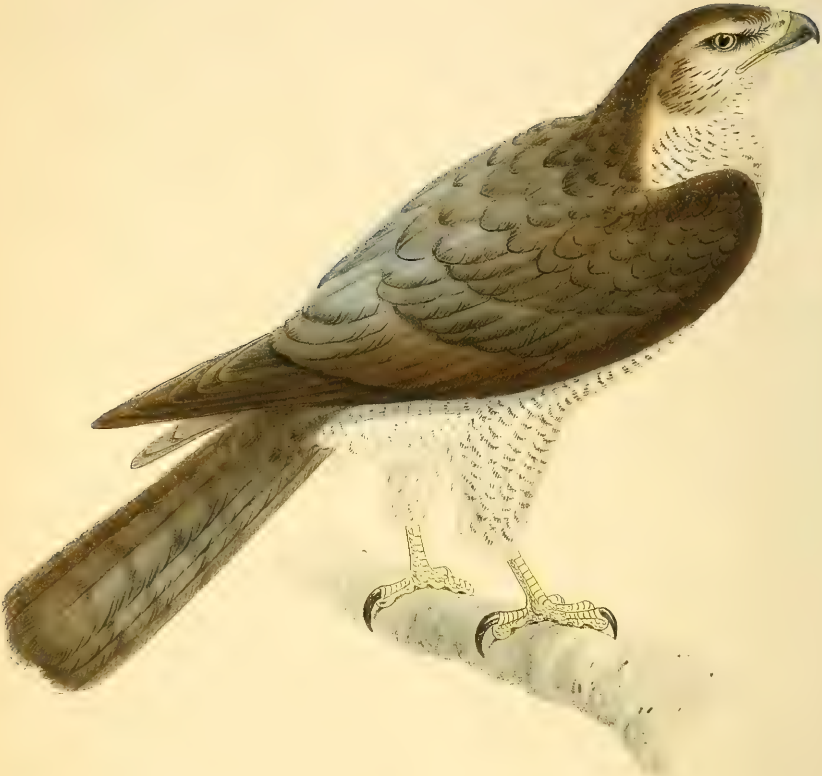
The Osprey is a bird of not uncommon appearance, and is indigenous in some of the more hilly parts of England; but on account of its being limited to one species of food, it is only found in the vicinity of rivers and lakes, and on the borders of the sea. It is indigenous also in the mountainous and wooded parts of Wales, Scotland, and Ireland, and resident throughout the year. This species is widely distributed both in the northern and southern hemispheres, remaining in polar regions a shorter or longer time according to the latitude and the opportunities of procuring food. In the central parts of the European continent it is also migratory, and is found there chiefly in summer, when the absence of frost enables it to procure its food from the rivers of the interior; but it retreats during the winter, sometimes as early as September, and returns again in spring as soon as the waters are open. The Osprey is frequently pursued by other birds of prey in order to rob him of the remains of his food, especially by the Moor Buzzard and the Crow.

The general description of the Osprey is as follows:—The cere and legs are light blue, the iris yellow. The legs are very strong, feathered for three-quarters of an inch below the knee before; the knee naked behind and roughly scaled: the larger claws form half a circle. From the eyes to the shoulders, on both sides, runs a blackish brown band; the under parts are white, with a few arrow-shaped marks on the breast: the tail is crossed with six dark transverse bars.

The Osprey differs very materially from all other birds in many peculiarities connected with its fishing habits, which render it admirably adapted to its particular mode of life. Its feet are of a remarkable character, strong, and so constructed as to enable it to retain a powerful grasp upon its prey. The feet as well as the legs are covered with a rough granulated skin like that of the shark; the roughest part is on the sole of the foot, where the reticulations are in the form of sharp spines; all these incline backwards towards the junction of the toes: on the foremost ball of the sole, both of the outer and middle toe, the spines are longer than elsewhere to assist in holding the fish. The toes are strong and thick, and the outer one reversible; the claws are much arched, round, and smooth beneath, not grooved as in the other species of Aquila. The middle toe measures three inches one line, of which the claw occupies thirteen lines; the hind toe two inches one line; the inner and outer toes nearly the same: the claws, which are included in the measurement, are of each one inch and one line.

The entire length of the male is twenty-four inches. The wings when closed reach to the tip of the tail; the third quill-feather is the longest. The tail-feathers are about eight inches long, and of equal length. The beak measures one inch and a half from the forehead to the tip (following the curve two inches), and is three-fourths of an inch in thickness at the base. The cere and upper part of the beak are blue, the tip dark horn colour. The nostrils are slanting, the iris golden yellow, but paler in young specimens. The female is larger, and measures from five to six inches more in length than the male. In the adult male the crown of the head is white, marked with dark brown spots ; round the eyes runs a dusky ring which encircles the white eyelids. The elongated bristling feathers of the head and neck are white, with yellow points and a few dark brown shafts. From the base of the bill and along the temples runs a blackish brown band towards the back of the neck and forwards to the wing, and loses itself in the back feathers. All the under parts are white, tinged in some places with yellow; the breast only is marked with brown spots of an arrow-head form. The under tail-coverts are sometimes spotted with pale rufous. The feathers on the back and wings are dull brown, the tertials sometimes edged with white; the quill-feathers are dusky ; the tail is brown with six bars across it of a darker colour. The outer feathers of the tail are lighter than the central ones, and the under parts white between the brown bars ; the shafts beneath yellowish white : the thigh feathers are white, very short and close, as is the case with other birds of aquatic habits. The bird represented in the plate is an adult male. The adult female differs only from the male in superiority of size, and in having the marks on the breast stronger. In the young male the back feathers and wing-coverts are bordered with pure white, giving a variegated appearance. In the young female these are less distinct and of a dirty colour. The white borders are most prominent in the fresh feathers, and disappear almost entirely before the return of the annual moult; consequently the appearance and description of this bird vary greatly at different seasons.

The egg marked No. 4 belongs to this species, and is figured from a specimen in the rich collection of W. Yarrell, Esq. to whose unvarying kindness I have been indebted for the loan of many valuable specimens both of birds and eggs.



5.

PLATE V.

GOSHAWK.

ASTUR PALUMBARIUS, (*Bechst.*)

The Goshawk is common in all the northern and temperate regions of Europe and Asia, in North America, and the northern parts of Africa. In central Europe there are few places where it may not be numbered among the common birds of the country. In Britain the Goshawk is not very numerous; it is of rare occurrence in the southern parts, but more frequently found in Scotland, where it is known to breed. It inhabits, indifferently, mountainous or flat countries, provided the district is well wooded and interspersed with fields and occasional tracts of open land. Extensive forests and unsheltered plains are less frequented by the Goshawk than districts of a more varied aspect. The number of this species that breed in the central parts of Europe, is not very considerable; in those parts it is a bird of passage, which arrives from the north, and passes the winter in the South of Europe.

The flight of this bird is quicker than the shortness of its wings would lead us to expect. He generally flies low, with his tail closed; but in fine and warm weather he may be seen in the higher regions of the air with tail expanded, wheeling round from time to time as if for the purpose of cooling himself. The Goshawk is generally shy, and upon his guard, nevertheless, when in pursuit of his prey, his voracious appetite sometimes leads him into danger, and he thus readily falls into snares or traps laid for him by the bird-catcher. The male, although smaller than the female, greatly surpasses her in boldness, courage, and quickness: he is therefore more valued by the falconer. The Goshawk was at all times a favourite falcon for the chase, although being stubborn and self-willed, he is more difficult to train than some other species. Rapine and love of bloodshed characterize him, yet these savage qualities are united with much courage, sagacity, strength, and agility. His voice in times of danger is a loud single note, many times repeated, and bears a great resemblance to that of the Sparrow-hawk; besides this cry, he utters another much resembling the note of the Peregrine Falcon, which is chiefly used when engaged in a contest with some other bird of prey. When the Goshawk seeks a place of rest, it is usually a branch in the middle of a tree; he is never seen in the top, and rarely on a rock in open country. He passes the night generally in copse wood, in preference to large trees, or if he chooses a pine tree he perches only ten or twenty feet from the ground. When at rest he sits in a slouching attitude, with his back raised, and his head rather depressed; but does not drop his tail in the manner that some other birds of prey are in the habit of doing. This bird is less noble in the acceptation of the term by falconers than some other Hawks. He catches, indifferently, flying and perching birds, the large and the small; he does not descend upon them from above like other falcons, but attacks them from below or sideways.

He is fond of woods, and in such places he chiefly resides, and there retreats with his prey in order to consume it at his pleasure. No uninvited guests dare approach him while engaged in this occupation, but in order to avoid interruption he usually conceals himself when at meals. If his wooded retreat be too distant he will hide himself behind a bush or tuft of verdure. He frequently chases and seizes partridges and pigeons; the places chosen by him rendering such birds peculiarly liable to fall in his way; he also takes small perching birds of any kind. Wild ducks, pheasants, black grouse, crows, magpies, &c. are all acceptable. Of mammalia, he takes hares, rabbits, and sometimes mice. All birds that fly low are subject to become his prey, as he does not follow the chase in the upper regions of the air. Wood-pigeons seem to be his peculiar property, these and all other birds are panic-struck by his unexpected appearance, and already bleed under his grasp before they have sufficiently recovered from the alarm of his sudden apparition, to be able to provide for their safety by laying themselves close to the ground; with partridges this is frequently the case. He is so ardent in the pursuit of his prey, that he sometimes chases pigeons into the farm-yard, and, as before mentioned, occasionally brings himself into captivity by pouncing upon the call-bird of the bird-catcher.

In his turn, the Goshawk is pursued by Rooks, which follow him with clamorous outcries, and not unfrequently one of these vociferous enemies pays for his boldness with the forfeit of his life.

Before he begins to tear his prey in pieces he plucks them nearly clean of feathers, but small animals he swallows entire. Living prey alone is sought by the Goshawk.

As early as March pairs may be seen soaring over their place of incubation, and describing circles high in the air. They build in forests in the oldest and loftiest fir trees, oaks, &c. The nest is composed of dead sticks and moss, and is large and flat. The female lays three or four eggs, of a short oval form, and greenish white colour; some are marked with yellowish brown spots, others quite plain. The young birds which make their appearance at the expiration of three weeks, are covered with a white down. During incubation the female is fed by the male, at which time he confines his pursuit chiefly to the forest, and frequently takes rooks, turtle, and ring-doves off their nests, thus destroying innumerable broods. After the gathering in of the corn he again leaves the forests and pursues the chase through corn-fields and thickets as before.

When gorged with food, and sitting at rest among the branches of a tree, the Goshawk falls an easy prey to the sportsman, who may then approach him unperceived by concealing himself among the trees as he advances. In former times the Goshawk was much used for the chase, and it still retains the preference among short-winged hawks. It may be trained to take hares, rabbits, herons, pheasants, and partridges, pigeons, &c. Among preserves of game he is a most destructive enemy; and during the season of rearing his young, commits great ravages, no inconsiderable supply of food being necessary to satisfy the wants of his family.

The beak of the Goshawk is strong, bending from the base; the upper mandible has a large tooth or festoon. The nostrils are egg-shaped. The wings are short, reaching only two-thirds the length of the tail; the first quill-feather is much shorter than the second; the third and fourth of equal length, and the longest in the wing; the shafts of all rather stout and strong. The legs and feet are of moderate length and strength; the middle toe long, the claws much hooked and sharp, the balls beneath the toes, which constitute the sole of the foot, are very prominent.

In the adult male the cere, legs, and feet, are full yellow; the claws black; the beak is bluish horn colour at the base, black at the tip; the iris orange-yellow. Over the eyes a white streak, inclining towards the back of the head; the space between the beak and the eyes is covered with white down, and radiating black hairs. The head, neck, back, wings and tail, are cinereous ash-colour, intermixed with brown, and darkest on the head. The tail-feathers have four, five, or six, transverse bars of a dusky colour, and a narrow white band at the tip; also, at the root, under the tail-coverts the feathers are intermixed with white. The throat is white, streaked with dusky; the lower throat, breast, thighs, and feathers under the wings, are barred with dusky transverse lines. These lines are regularly disposed, and are about half the width of the white space between them; each feather has four or five bars. The quills are dark brown towards the tip, and crossed with dusky bars towards the roots. On the lower surface the quills and tail-feathers are greyish white, the dark bars appearing through them in consequence of their transparent texture.

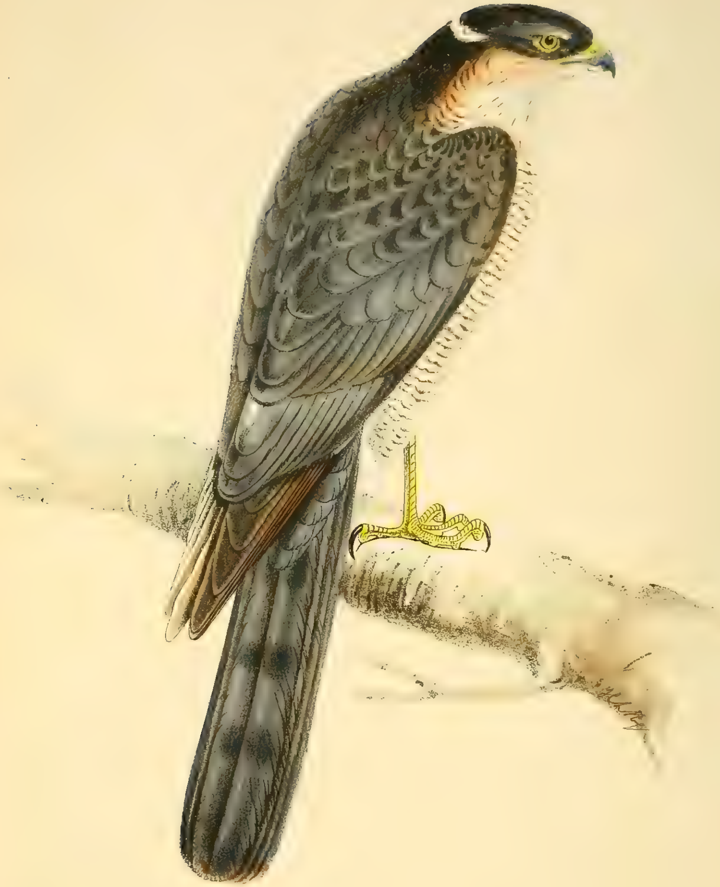
The ash-colour upon the upper plumage of the Goshawk is to be seen only upon living and recently killed specimens; it is a kind of bloom which disappears shortly after the bird is dead, and turns to a greyish brown; the older cabinet specimens become, the less they retain of the grey tint: a similar change takes place in the upper plumage of the adult Sparrow-Hawk, but not quite to the same extent; the grey colour in that species being more permanent.

The colouring and markings of the young males are, during the first year, very different from those of the adult. The feathers of the head are dark brown edged with rufous; the nape cinnamon brown, with an oblong dusky spot in the centre of each feather. The feathers of the upper plumage are brown, tipped with white.

The tail-feathers have five dusky, and five greyish brown bars, and are all tipped with white. The quills, tertials, and secondaries are dusky, with greyish brown bars. The throat, and a band over the eyes white, speckled with brown. The breast, belly, thighs, and feathers under the wings, light cinnamon brown, or white strongly tinged with rufous. All these reddish feathers have in the centre a dusky stripe, broader at the root than at the tip, and much narrower on the thighs and belly than on the breast. In young birds the iris is pale yellow, and the feet the same, tinged at the joints with green. The young female is paler in colour than the male, and the dusky spots on the under plumage are larger. She is also of larger dimensions than the male, and stronger. The annual moult takes place in July or August, at which time birds of a year old begin to exchange the plumage just described for a very different livery. It resembles, in general appearance, that of the adult birds, but the back is browner, and the under parts dirty white or yellow, and the transverse bars broader and less numerous. Several years elapse before the upper plumage acquires the fine grey colour, and the under parts the bluish white, proper to the adult.

The adult female is more brown than blue on the upper parts, and her under plumage strongly tinged with rust colour; when very old the adult female differs very little from the male, and can not without difficulty be distinguished from him.

The length of the male Goshawk is twenty-one inches, from the carpus to the tip of the wing twelve inches and a half. The beak measures in diameter from the forehead to the tip thirteen lines, in the arc fifteen lines, and nine lines in thickness at the base. The tarsi are feathered half way down, scutellated before and behind, and three inches in length; the toes are scutellated on the upper surface; the middle toe measures two inches and a half, including the claws; outer, one inch eight lines; the inner toe two inches three lines, the hinder two inches three lines, including the claws, which occupy one inch.



6.

PLATE VI.

SPARROW-HAWK.

ACCIPITER FRINGILLARIUS. (*Will.*)

THIS well-known bird is commonly met with in all parts of England in situations suited to it. It prefers wooded country, interspersed with meadows and corn-fields, as in such parts its favourite food abounds. The female Sparrow-Hawk is much more frequently seen than the male, as she is of bolder disposition, and seeks her food in the neighbourhood of villages, in their gardens and hedgerows, where she is the constant enemy of the sparrow race, and destroys them in great numbers; she will also take young or feeble pigeons from the farm-yard. The male is in his habits much more shy and retired, seldom approaching villages, but concealing himself, in preference, in woods and copses; in such localities he seeks his prey, which consists of finches, buntings, and blackbirds, also mice, cockchafers, and grasshoppers. He is, however, sometimes bold enough in early morning, when pressed by hunger, to attack the call-bird of the bird-catcher. The bird represented in the plate, a male in perfect adult plumage, was taken in this manner. In manners and habits, as well as in appearance, the Sparrow-Hawk bears a striking resemblance to the Goshawk. Like him the Sparrow-Hawk takes his prey perching or flying, or sweeps it from the ground; like him, also, he hides himself behind a bush to devour his prey, being very jealous of observation. The flight of the Sparrow-Hawk is particularly buoyant, from the extreme lightness of his slender body, and rapid, notwithstanding his short wings. He is valued by the falconer on account of his readiness in learning the lessons instilled by his master; he is courageous and daring, and will attack birds much his superior in size. The female, on account of her superiority of size, may be trained to catch partridges and quails. In the month of April the Sparrow-Hawk retires into the woods with his mate: the place chosen for nidification is usually among the uppermost branches of a pine or fir tree. The nest consists of sticks and is lined with moss and hair, and flat in form: sometimes a deserted crow's nest is chosen for the foundation. The eggs are from four in number to six or seven, and are marked with reddish brown blotches upon a bluish white ground. The blue ground colour fades shortly after the eggs are preserved; cabinet specimens are therefore paler than the one represented in the plate (fig. 6), which was drawn from a fresh specimen taken from a fir tree in the woods at Claremont. The young birds, which are hatched after three weeks' incubation, are at first covered with white down; the females may be detected even in the nest by their superior size: they are fed upon small birds, mice, and insects. The mother courageously defends her young if molested, and will lose her life rather than leave the spot; the male, more shy, will retreat on the first alarm, and from a distance view the tragedy that ensues. Although the Sparrow-Hawk is well known to feed on pigeons, and is even said to take the young ones from their nest, I am acquainted with an instance of a pair of pigeons and their young offspring being respected by a pair of Sparrow-Hawks, although in the immediate vicinity of their own young brood. On the banks of the Thames at Weybridge a pair of these Hawks built in the top of a lofty cedar tree; in a few days a pair of wood-pigeons selected a lower branch of the same tree, in which they also built their nest, and subsequently hatched and reared their young ones entirely unmolested by their dangerous neighbours.

This Hawk is the greatest enemy of sparrows and other small birds; and as he can take them at every disadvantage, they have no way of escape but by flying into a hole in a tree, or hiding themselves in some other manner from observation. If they are overtaken by him, and there is no shelter near, they will crouch close to the ground, and in this manner sometimes escapes his vigilance.

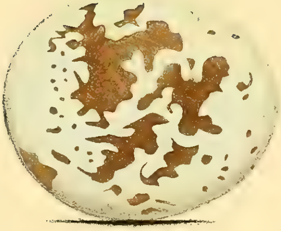
When in search of his prey he flies with the swiftness of an arrow, and in order that his approach may not be observed, he skims near the ground, or close to hedges and palings: when arrived at the spot where he expects the birds he is in pursuit of, he mounts quickly and descends like lightning upon the little flock, and, having secured his victim, escapes with it to his retreat. The larger birds are plucked very clean before they are devoured; the smaller ones are swallowed nearly entire. I have seen a Sparrow-Hawk swallow even the legs and long hind claws of the skylark. Sparrow-Hawks are not only met with in all parts of Europe, but in the temperate regions of Asia and Africa.

When alive, or recently killed, the upper plumage of the adult male Sparrow-Hawk is rich bluish grey, as represented in the plate; this colour is more or less evanescent, although more permanent in this species than in the Goshawk. Above the eyes is an interrupted band of white, which passes to the back of the head, and is permanent at all ages. The tail and upper tail-coverts are of the same colour as the back and wings: the quill-feathers are dusky grey towards the tips, the outer web brownish. The under parts are white, barred with brown and rust colour, and tinged with rust along the sides of the neck and flanks. The beak is blue at the base, the tip dark horn; the base of the under mandible ochreous yellow. The cere and orbits are yellow, the iris rich orange; the feet and legs are full yellow or gold colour, long and slender, and the balls or soles of the feet, very prominent; the claws black; the outer and middle toes are united by a membrane.

The very old female nearly resembles the male, but her upper plumage is of a duller and more leaden tint, and her under parts are not tinged with rufous. The young male has no grey on the upper parts; his feathers are dusky, bordered with reddish brown; the tail-feathers brown, crossed with dark bars as in the adult. The young female much resembles the young male, but her plumage is of duller colours; dusky above, bordered with greyish brown, beneath dusky and white. The legs and cere of the young birds are greenish yellow; the eyes yellow instead of orange. The eyes of the Sparrow-Hawk have a peculiar restlessness, lustre, and beauty above all other birds.

Entire length of the male twelve inches; length of the wing, from carpus to tip, seven inches two lines. The tail extends three inches beyond the tip of the wings. The tarsus measures two inches and a quarter; the middle toe and claw, two inches; the hinder, one inch; the inner, one inch; the outer, one inch ten lines. The claw of the inner toe measures six lines, of the hinder, five; the middle and outer, three lines. The beak measures six lines; in the arc, eight lines. The female is nearly one-fourth larger than the male, and weighs six or seven ounces more.

The Sparrow-Hawk has been separated from the genus Astur, in which it was formerly placed, on account of its long and slender legs,—an arrangement which we have adopted, although we think the difference hardly sufficient to constitute a separate genus, consisting, as it does, merely in the superior length and slenderness of the legs: in all other respects the same generic characters apply to both.



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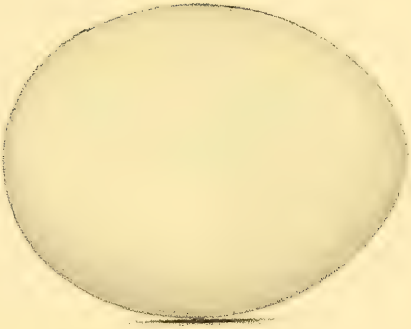

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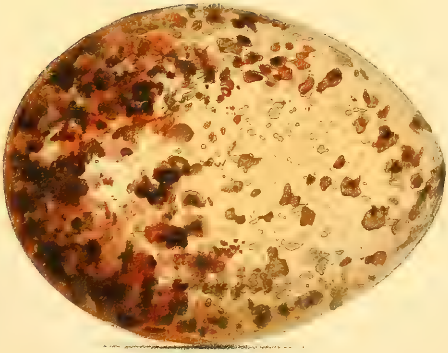

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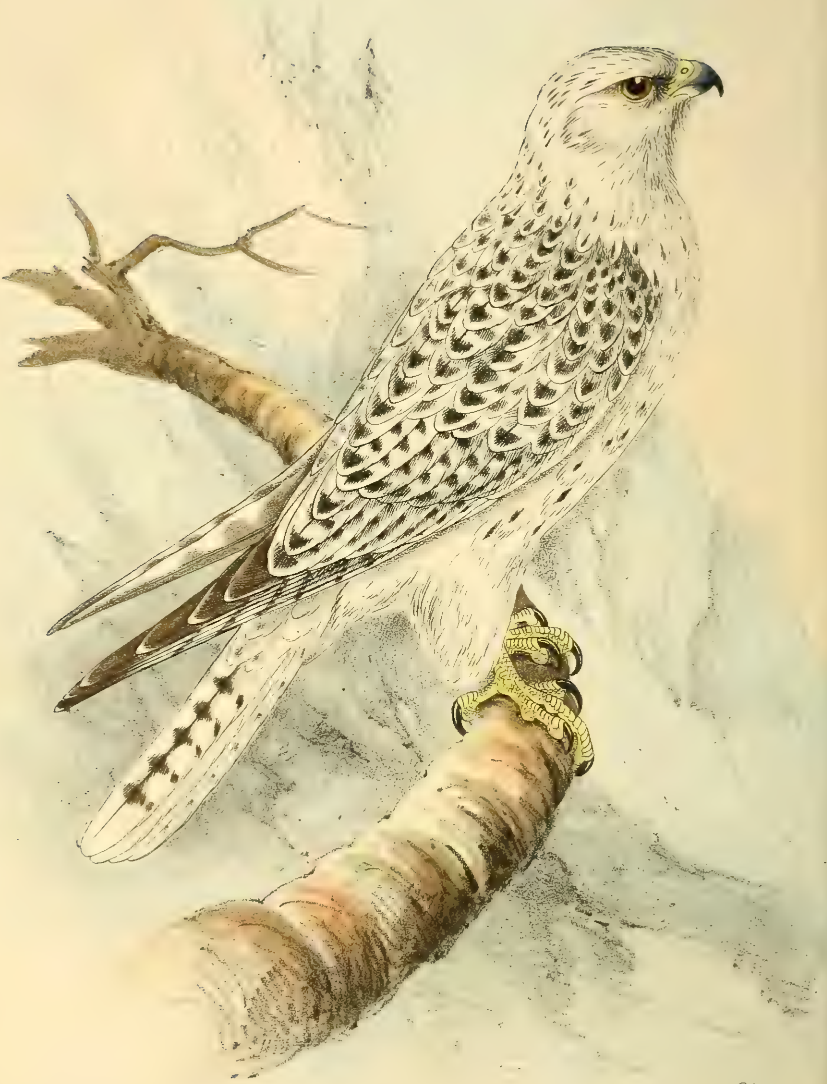


Pl. 7.

PLATE VII.

JER FALCON.

Falco Islandicus. (*Latham.*)

We cannot better describe the peculiar characteristic distinctions of the genus "Falco," the one under present consideration, than in the words of T. P. Selby, Esq. "The birds of this genus," he observes, "justly considered the typical form of the Falconidæ, as possessing the raptorial powers in the highest perfection, are distinguished from the other groups by their stronger bill, furnished with an acute tooth; their long and acuminate wings, vigorous power of flight, and peculiar mode of capturing their prey. From their docility, and susceptibility of being reclaimed, that is, trained to the purposes of Falconry, they have been usually termed the noble birds of prey, all the others coming under the designation of ignoble."

The Jer Falcon is a native of the most northern parts of Europe, Asia, and America; inhabiting Iceland, Norway, and Lapland; Greenland, and the countries around Hudson's Bay. It is chiefly found in the most mountainous parts, but occasionally visits the level tracts and the sea-coast in search of food. According to the best authorities, the Jer Falcon confines itself during the summer months to those countries that border on the Arctic regions, rarely visiting the southern parts of Sweden until late in the autumn, and even in winter seldom descending below sixty degrees of north latitude.

This species is, however, not entirely confined to such northern regions, as it is occasionally met with in Germany, and other parts of Europe, in winter; and many instances are recorded of its appearance in Scotland, Wales, and England, even to the most southern parts, but such occurrences are rare.

This beautiful bird is the largest of all true Falcons, and possesses, in an eminent degree, the peculiar attributes of its tribe. As the Golden Eagle deserves the first place among eagles, so does the Jer Falcon among the falcon tribe. In him, courage, power, and speed, are united with a noble appearance and an elegant and graceful form. His shoulders are broad; his chest full and round; his wings long and pointed; his tail narrow; his beak is short, thick, and doubly toothed: his feet are strong; the tarsi short and stout; the toes are very long, with large balls on the soles of the feet, and strong sharp claws. His compact clothing, consisting of closely set and firm feathers, contributes much to display to advantage his noble form.

Notwithstanding his wild and lively nature, which is perceptible through all his actions, this species is easily trained for the chase, and being strong, courageous, active, enduring, and willing to obey, he has always obtained the preference among birds used in falconry; and although his natural residence is in high northern latitudes, individuals have been kept for several years at a time in England, and used for the chase. A trained and well kept Falcon will live from ten to twelve years in confinement. Now, however, this once favourite sport having been so long on the decline, owing to various causes, a Jer Falcon is become a rare sight in England. In countries where this sport is still pursued, the preference is given to birds that are taken when about a year old; older birds are less valued; and those taken from the nest and brought up in confinement, a practice sometimes pursued, are still less adapted to purposes of falconry. Falconry has declined for many years on the continent of Europe as well as in England, which is attributed in a great measure to the long duration of war in the beginning of this century, which was the means of breaking up many hawking establishments.

In confinement this species requires to be treated with great care, and in order to retain his powers in perfection, he must be fed entirely upon fresh food, especially birds.

In a wild state the food of the Jer Falcon consists of hares, and other animals of a similar size, and birds, among which the ptarmigan is preferred, and pursued unceasingly. In his manner of pursuing and taking his game, the Jer Falcon much resembles the Peregrine. Like him, he descends with the swiftness of thought upon his prey; in case of failure he reascends and repeats the stroke. These birds never descend perpendicularly, but always in a slanting direction, upon their prey.

The Jer Falcons build upon lofty and precipitous rocks, and their eggs are two or three in number. From these situations the young are sometimes obtained with considerable risk, the old birds defending the nestlings with great intrepidity.

The Jer Falcon can only be considered in Britain as an accidental visiter, and probably all that have been taken here have been immature. M. Boié is of opinion that in their adult state, birds of this species do not quit their native Arctic regions; and Temminck concurs in the same opinion.

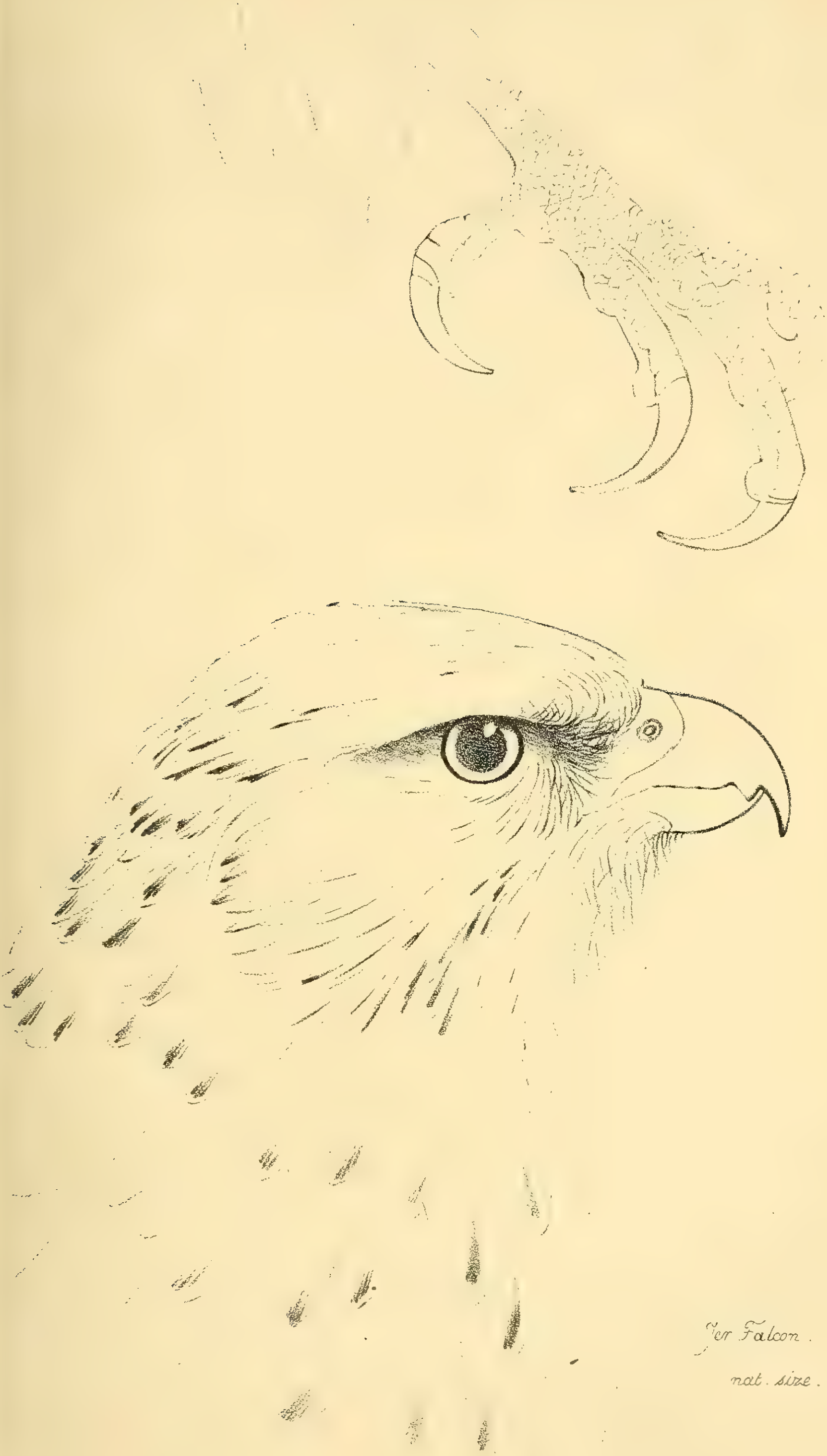
The bird represented in the plate is from a specimen preserved in the British Museum, and is apparently beyond the middle age. The very old birds are said to become perfectly white, as the spots upon the feathers decrease in size at every succeeding moult. The following measurements were taken from the same bird, which appears from its size to be a male.

The beak, from the forehead to the tip, measures in diameter one inch and one line, but in the arc one inch six lines. The beak is of a peculiar form, having the tooth longer than in any other species of British Falcons. The nostril is round, as in all true Falcons, and has a small pyramid or column in the centre. The wings measure from the carpus to the tip fourteen inches, and extend to within two inches of the tip of the tail. The middle toe, which much exceeds the others in length, measures three inches, including the claw. The inner claw, which is the longest, measures in the arc one inch and two lines. The tarsi are feathered half the way down, the naked part as well as the base of the toes reticulated; the remaining part of the toes, towards the claws, scutellated. The claws are black, hooked, and finely pointed. The legs and feet, cere, and orbits, are in the adult birds yellow, but become bluish grey when preserved as specimens. In immature birds these parts are naturally of a dull blue, tinged with green.

In plumage the females differ little from the males, but the brown marks upon their feathers are larger and darker. They exceed the males in size.

In young birds the whole of the upper parts are cinereous brown with dirty-yellowish edges and spots; the under parts are yellowish-white, each feather marked with an irregular lancet-shaped spot, of a dusky colour, largest on the breast. In this state of plumage the beak is black; the cere, orbits and legs, dirty pale blue, the iris dusky grey; a dark streak descends from the corner of the beak down the side of the throat; this streak disappears as the bird becomes older.

The egg figured 7, is the one belonging to the Jer Falcon.



Jer Falcon.

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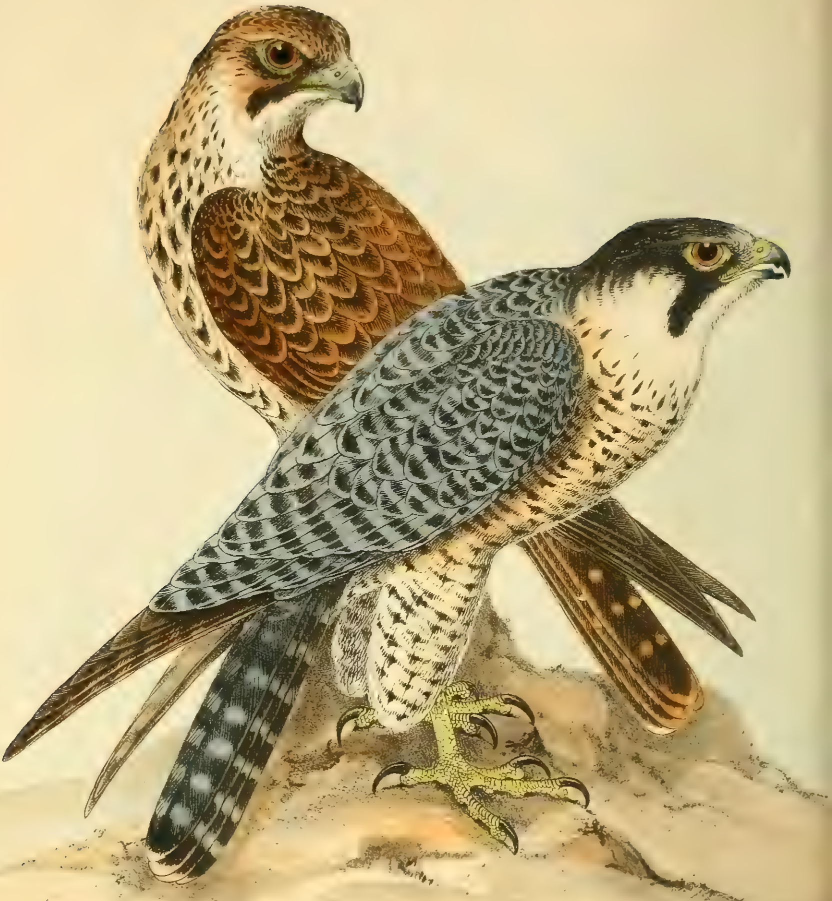


Pl. 8.

PLATE VIII.

PEREGRINE FALCON.

Falco Peregrinus. (*Linn.*)

The Peregrine Falcon is a very courageous, powerful, and active bird; qualities observable at first sight in his strongly built form and brilliant eye. His flight is rapid, with quick movement of the wings: he is rarely observed to sail, but is usually seen skimming near the ground. On rising, he expands his tail, and flies in a slanting direction for some distance before he mounts in the air. When on the wing, he is easily distinguished from other birds by his fine proportions, his narrow tail, and long and pointed wings. When sitting at rest with his neck shortened, and the white feathers of his breast spread over the shoulders of the wings, the black streaks which descend from the corners of his mouth, contrasting with the white colour of the throat, render him a striking and conspicuous object.

This Falcon is a shy and wary bird, and difficult to approach unobserved. His favourite haunt for resting at night is the high branch of a lofty forest-tree, and pine-forests seem to be preferred; to such places he retires about sunset. Sometimes he is seen in the open fields, seated upon a stone, rock, or hillock, where he quietly waits, watching for his prey.

The voice of the Peregrine Falcon is loud, clear, and sonorous. These birds build their nest in the highest pine-trees; sometimes, also, in the fissure of a precipitous rock. Both male and female may at times be seen over the place chosen for nidification, wheeling in circling flight. The nest is a flat structure, composed of dry sticks, on which the female deposits three or four eggs; and three weeks is the length of the period of incubation. During this time the male seeks food for himself and his mate within the limits of the forest; rooks, pigeons, and other forest breeders, become at this time his prey. He is also a great enemy to grouse, ptarmigans, and partridges, and when once a covey of the latter is discovered, there remains but little chance for the escape of any of them from his persevering returns to the spot they frequent. In more northern countries, the Peregrine is said to attack the capercailzies, notwithstanding their great size, and to consume them in great numbers: and he is so fastidious that he never resorts a second time to the prey that he has left, which renders him more destructive than he would otherwise be.

Another circumstance that brings upon the devoted Peregrine the charge of destructiveness, is the fact, that various birds, less courageous and less successful in the chase than he is, habitually rob him of his prey.

The buzzard sits quietly upon a rock or a stone, watching with eagerness the motions of this hawk, when engaged in the pursuit; as soon as he has taken his prey and alighted on the ground for the purpose of devouring it, he is driven away by the buzzard, to whom he resigns it without a struggle, and takes to flight. However hungry, he is never seen to defend himself, or dispute his right. The rough-legged buzzard, and even the harrier, rob him in a similar manner. Nevertheless, the Peregrine displays both courage and address in frequent contests with his equals.

The food of the Peregrine Falcon consists entirely of birds, which are plucked clean before they are devoured. He attacks indifferently all kinds from the size of the lark to that of the wild-goose. Reptiles are never taken by him. His prey is always captured when on the wing, by outsoaring and pouncing upon his victim ; he cannot take birds from the ground, nor does he venture to pounce upon such as are skimming near it, as he would endanger his own safety. Pigeons are well aware of this, and may often be seen to fly cautiously close to the ground when a hawk is in sight.

The Peregrines, as well as all the other noble birds of prey, destroy their victim instantaneously, by attacking it in a vital part.

The Peregrine Falcon is met with all over Europe, and in the northern parts of Asia, Africa, and America. It is indigenous in England, inhabiting especially the more hilly districts. "From its nature," says Montagu, "the Peregrine Falcon is limited to certain districts, choosing only the mountainous parts, where it can settle on the shelving rock of some stupendous cliff, and breed in security in the midst of plenty. From this circumstance, this species appears less plentiful with us than it really is, there not being on any part of our coast, from north to south, a spot where the cliffs rise to the height of three or four hundred feet, but they are found scattered during the breeding season, and from which they seldom retire, except for occasional migratory purposes, or when the young are driven to seek fresh quarters."

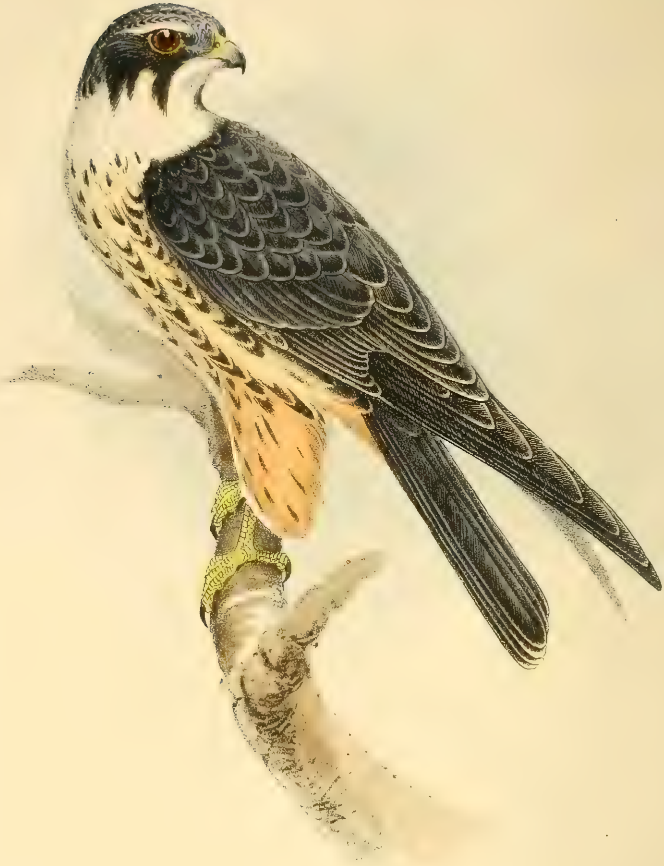
The Peregrine holds the next rank to the Jer Falcon in estimation for falconry ; his strength, courage, and aptitude to receive instruction rendering him for this purpose a valuable bird. Formerly, when falconry was much esteemed, considerable care was taken with the education, treatment, and feeding of these beautiful birds, and large sums expended for that purpose. They were used, and still are, where this sport is exercised, for flying at herons, partridges, &c.

The birds represented in the plate, are an adult female in the lead coloured plumage proper to maturity, and a young male.

The entire length of the male Peregrine Falcon is fifteen inches; of the female seventeen. The following dimensions were taken from the female figured in the plate:—the length of the wing from the carpus to the tip fourteen inches; of the tarsus two inches. The beak of the Peregrine Falcon bears a strong resemblance to that of the Jer Falcon, except that the prominent tooth of the beak is not so strongly developed; it measures from the forehead to the tip one inch and a quarter in diameter, or an inch and a half following the arc. The legs and feet also much resemble those of the Jer Falcon in size, and in the number of the scales upon the toes. The wings, when closed, reach nearly to the end of the tail: the second quill a little exceeds the first in length, and is the longest in the wing: the tail is nearly square.

The adult male and female are very much alike, except in size. The older this bird becomes the paler are all the under parts of his body, the transverse bars on the breast and flanks become narrower, the reddish tint disappears, and the white ground colour becomes tinged with pale bluish ash, particularly on the sides and thighs; the upper plumage also acquires a darker shade. The young birds are quite differently coloured from the adult, as may be seen in the brown bird delineated in the plate, which represents a young male of about a year old, before the autumnal moult. Its near approach to maturity was indicated in this specimen by one or two new feathers among the side-coverts of the tail, which were grey, barred with black, as in the adult. At this age the beak is pale blue ; the cere, orbits, corners of the gape, and legs, greenish yellow.

Number 8 is the egg belonging to this Falcon.



Pl. 9.

PLATE IX.

THE HOBBY.

Falco Subbuteo. (*Linn.*)

The Hobby is an inhabitant of the warm and temperate parts of Europe, Asia, and probably Africa. In Europe its northern limit appears to be the most southern parts of Sweden and Siberia, and the central portions of Russia. In England it does not appear to be met with further north than Northumberland, although on the continent of Europe it possibly reaches a higher latitude; but although widely diffused this species is not considered anywhere to be very numerous.

The Hobby is an elegant little bird, and greatly resembling the Peregrine Falcon in the distribution of its colours. Through all its actions it displays great acuteness, perseverance, courage, and quickness. It flies with great buoyancy and speed, and may readily be distinguished when on the wing from the Kestril and Merlin, by its narrow pointed wings, and slender form. When at rest, perched upon a stone or clod of earth, or sitting upon a naked branch of a decayed tree, it is readily known by the marked character of its plumage, its white breast and throat, and the dark bands that descend from the corners of the beak.

The Hobby is found in mountainous as well as in flat countries, and appears to prefer copse wood and thickets in the neighbourhood of fields and open commons rather than forests. In England it arrives in April, and in September or October is again on its retreat to warmer latitudes. The Hobby chooses for its prey larks, swallows, and martins, which he pursues in the air, following them easily in all their rapid evolutions, and strikes with such unerring aim that he seldom fails to secure his selected prey: even the swift cannot escape him. He takes also quails, young partridges, sandpipers, and plovers, when on the wing.

The male and female hunt together, but are said sometimes to quarrel for what they have caught, and suffer their prey to escape from them. The martins are so terrified at their approach, that they throw themselves upon the ground for safety. Larks are equally disturbed at the sight of their mortal enemy, but instinct teaches them sometimes to seek their safety by rising hastily into the air, where they are secure unless their enemy rises above them.

The Hobby will occasionally follow sportsmen when shooting with their dogs, and skimming along without any apparent motion of the wings, will pounce like lightning upon the larks or other small birds that, startled by the approach of the dogs, rise upon the wing. He also chases cockchafers, grasshoppers, and other large insects, and pursues them until late in the evening; sometimes he is seen, like the Nightjar, chasing insects over ponds and rivulets when nearly dark. On this account the Hobby retires late to rest, and is not among the earliest risers in the morning, many birds having finished their morning song before he makes his appearance from his nocturnal retreat in the woods.

The Hobby builds in forests and woods, always selecting a lofty tree. In one of the upper branches in such a spot the nest is constructed, which is built of dry sticks, and lined with cows' hair, moss, and other warm materials. Sometimes a hole in an aged tree is chosen as affording a sheltered retreat. If not disturbed, the same birds sometimes return to their haunt in the succeeding year. The female deposits three or four eggs, which, like other Hawks, are hatched in three weeks. The young are fed with small birds and insects, and remain for some time in the neighbourhood of the nest. Sometimes the young are seen catching the grasshoppers that make their appearance among the tops of the long grass; and when old enough to fly they follow their parents to the field.

This courageous and docile little Hawk may be trained to catch quails, larks, and other small birds. In confinement it becomes very tame: it requires to be carefully kept during the winter, to protect it from the rigours of the climate, not suited by nature to the delicacy of its frame. Hobbies, from their shyness in a wild state, are difficult to approach, but they may sometimes be shot when in the ardour of pursuit they venture, as before mentioned, too near the sportsman, whose dogs they are following in order to share in the started game.

The note of the Hobby resembles somewhat the call of the Wryneck, and in the spring may occasionally be heard.

The Hobby represented in the plate is a male bird in adult plumage. When very old this bird is said to lose entirely the dusky spots upon the thighs and under tail-coverts, those parts acquiring a fine plain rust colour; at which age the upper parts of the plumage become steel blue, without any bordering to the feathers.

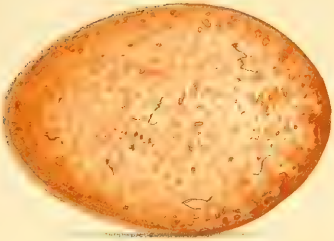
The full grown male bird is about twelve inches in length; the tail, whose feathers are of equal length, measures about six inches: the wings, when closed, reach beyond the tip of the tail.

The beak is blue, tipped with black, short, and sharp pointed, and measures seven lines in diameter, and nine lines in the arc; the cere, eyelids, and feet are yellow; the iris is chestnut brown. The tarsi are short, measuring about an inch and a half, and feathered below the knee; the toes are long and slender.

The adult female is nearly the same in colouring as the male, but larger in size, exceeding him by about an inch and a half in length.

The young birds have the legs paler in colour; the cere and orbits almost white, sometimes intermixed with blue; the head, neck, and all the upper parts are dusky, with rust coloured and yellowish edges.

The egg figured 9 in the plate is that of the Hobby. Some of the eggs of this species, as described by Montagu, are bluish white, with olive green or yellowish brown blotches.



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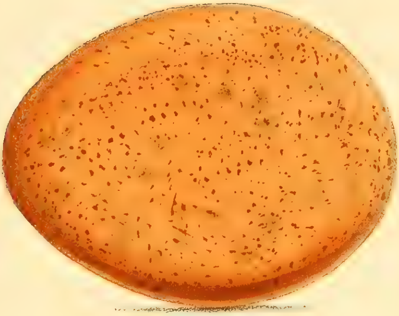

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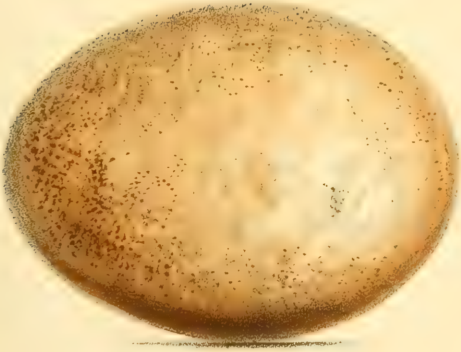

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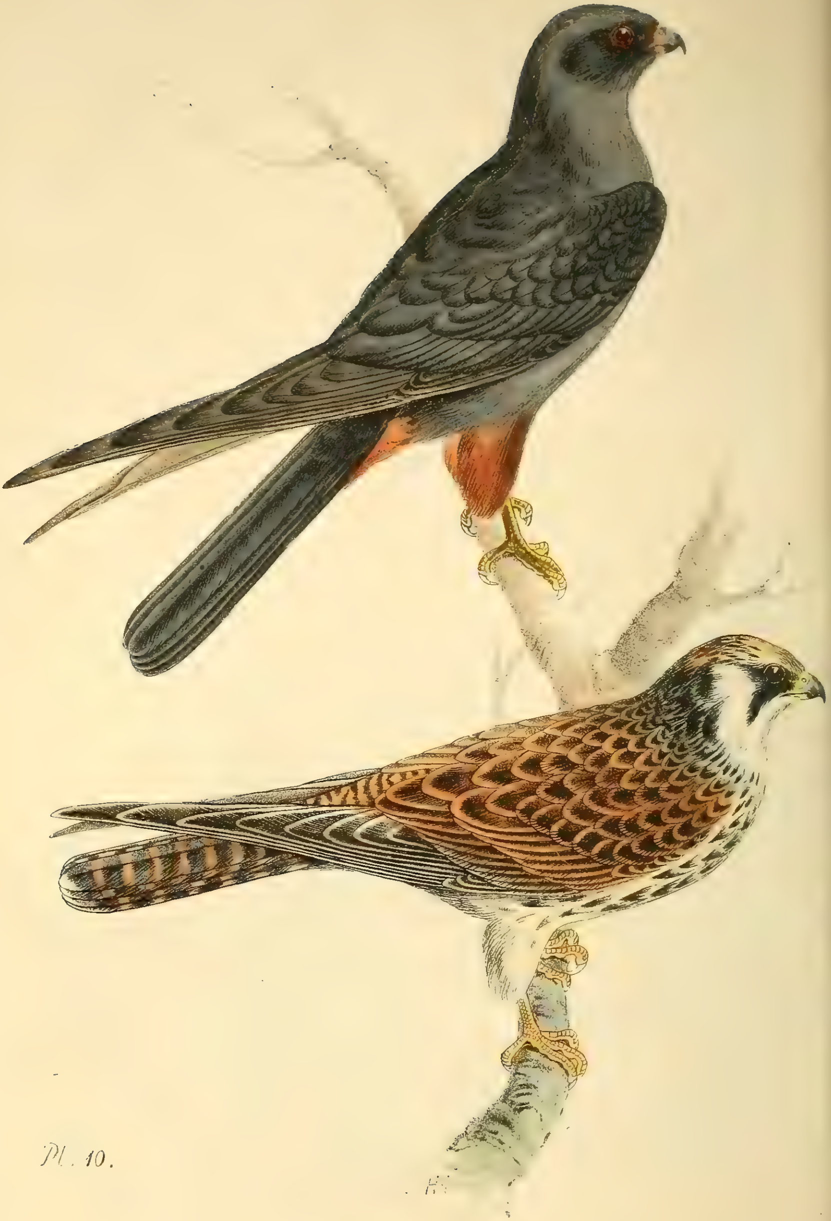


Pl. 10.

PLATE X.

ORANGE-LEGGED HOBBY.

FALCO RUFIPES.

THE Orange-legged Hobby is found in many of the temperate parts of Europe, from the forty-third to the fifty-third degree of north latitude: it is of rare occurrence in the western, but is said to be common in the eastern countries of Europe, and in Siberia. It is often seen in Russia, Poland, Hungary, and Silesia. It appears sometimes in Switzerland, and occasionally, but very rarely, in France. In England it is considered of very rare occurrence, a few specimens only having fallen into the hands of persons acquainted with this branch of natural history. These specimens, which were first recorded by Mr. Yarrell, were shot on the eastern coast of England, in Norfolk; and one has since been met with in Ireland.

According to my own observation, the Red-legged Hobby has appeared in this country since the period last recorded, namely 1832; and it is possible that when further investigation is made on the subject, it may be found not to be of such rare occurrence as it is at present supposed to be.

I have more than once seen this bird, but have not been so fortunate as to obtain possession of it. On one occasion, in the summer of 1838, I was late one evening walking in the unenclosed plantations belonging to Claremont, and was carefully searching for Plovers' eggs on a boggy heath, on which I knew they were sometimes found, when my advance roused from the ground a bird, whose peculiar flight instantly arrested my attention, and I followed it as far as the enclosure of the plantation into which it had entered would permit. I presently perceived it sitting upon the branch of a tree, in company with another bird of similar size, but differing in colour. I was near enough to observe their plumage, and no doubt remained upon my mind respecting them,—they were Orange-legged Hobbies. They presently took to flight, but did not leave the plantation, which was of young larch, and other fir-trees; their manner of flying was peculiarly buoyant and graceful, with frequent turns and evolutions, as if in pursuit of some aerial prey; it was now dusk in the evening, and I watched them until they could no longer be perceived. It was in summer, and I conjectured that they must have a nest in some part of the copse. I returned several evenings to the same spot, and saw them again and again. I was extremely anxious to obtain the nest, if such existed, which I do not doubt, considering the season of the year, and the fact of their being seen in the same place several successive evenings.

Claremont being strictly watched by the King of Belgium's keepers, it was only through their interference and assistance that I could hope to obtain my object, and I accordingly applied to them; but such is their illiberality and extreme jealousy of the interference of a stranger, that I could not prevail upon them to take any trouble in the search, although I offered a liberal reward for the birds, and for any indication of their nest; nor would they permit me to resume the search myself. This was in the summer of 1838: since this period I have had a circumstance detailed to me of the capture of a little bird of the hawk species, which could be no other than the one at present under consideration. A young friend, who himself related the circumstance to me, had a hawk brought to him of a kind that he had never seen before; it had been observed, by one of the before-mentioned keepers of Claremont, to enter a hole in a tree at eleven or twelve feet from the ground; the man had with him an active little boy, who, climbing up the tree, succeeded in securing the bird. The keeper had never seen a bird of the sort before, although well acquainted with the other small species of hawks which abound in that part of Surrey. My young friend described it as extremely small, very dark in colour on the upper parts of its plumage, and with red or orange-coloured legs, and whitish claws; it sat remarkably upright on its perch, so as to give an impression that it would fall over backwards. It ate voraciously such food as was offered it, but was so extremely wild, that, fearing he could never succeed in taming it, or reconciling it to its cage, after keeping it about a week, he determined to give it its liberty, being unconscious of the rarity and value of his captive. On opening the door of its cage it flew off with incredible swiftness, and was presently lost to sight. Wishing to ascertain more exactly the appearance of this bird, I showed my young friend various drawings of hawks, and other birds, and he immediately pointed out, without hesitation, the female of the Orange-legged Hobby. It was in the middle of the summer of 1840 that this bird was captured. The fact of its being seen several times in the middle of summer, leads to the supposition that some few pairs may occasionally breed in England; and it is not impossible that the bird which was caught in a hole in a tree had chosen that locality for the purposes of incubation; we are the more inclined to this opinion, as it has been conjectured by several naturalists that such a situation is chosen by this species as a breeding place, although nothing certain is known on the subject of the nest and eggs, which have not hitherto been described, that we are aware of. These remarks, crude as they may appear, are hazarded in order to draw attention to a subject which it may possibly yet be in the power of some British naturalist to set satisfactorily at rest.

The appearance of this species in the south of Europe, Monsieur Temminck considers to be accidental. It is probable, he says, that it is drawn towards the coasts of the Mediterranean by the accidental migration of the insects that form its customary food. Monsieur Roux also says that its appearance in Provence is not sufficiently frequent to allow it to be ranked among the birds of passage of that country.

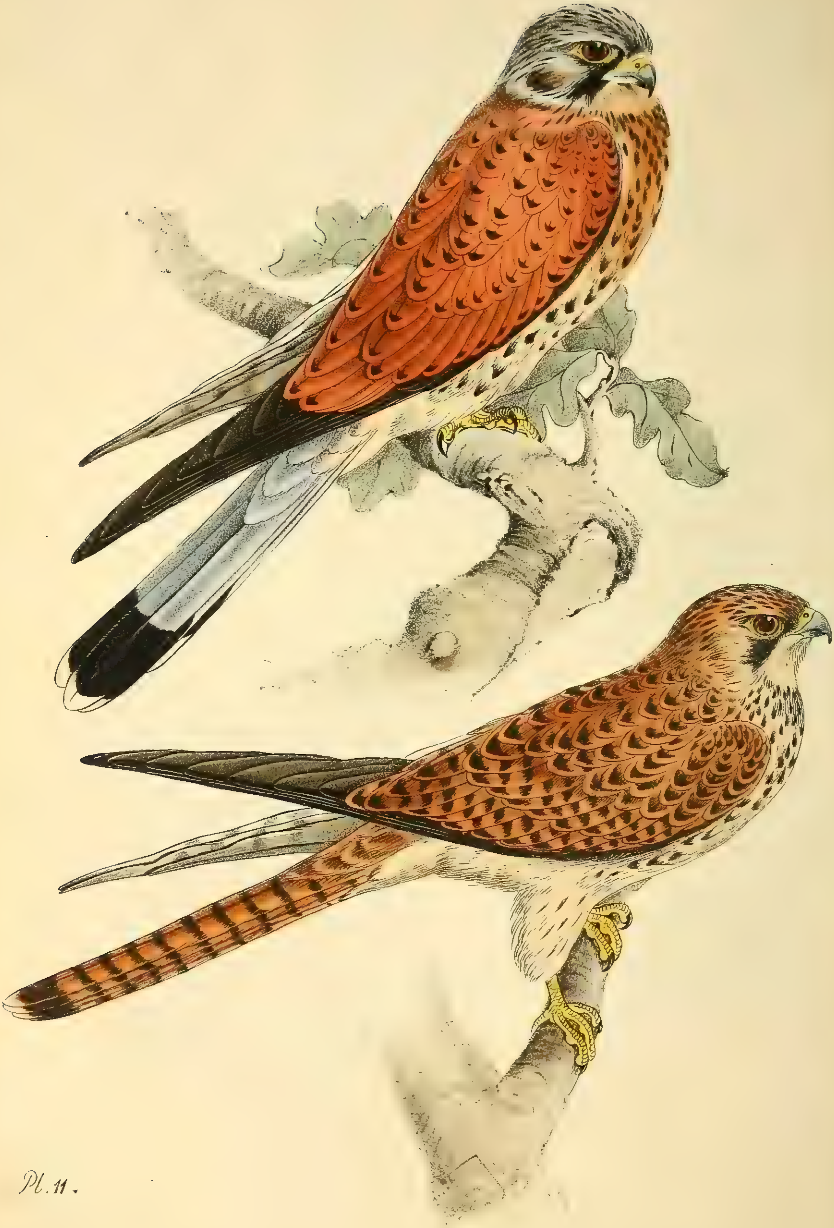
This falcon is said to be chiefly observed, in countries where it abounds, in copse-wood, or in open level ground interspersed with bushes; sometimes it is seen seated upon the dead branch of a tree. Its food is known to consist chiefly, if not entirely, of insects of the coleopterous order, crickets and grasshoppers, as the remains of such insects alone have been found in the stomachs of specimens that have been dissected. In pursuit of these nocturnal insects, the Orange-legged Hobby is seen skimming over marshy spots late in the evening, occasionally uttering its peculiar and musical call-note.

These particulars of the habits of the species perfectly agree with my own observations with the locality in which I have seen them, and their supposed occupation.

The figures represented in the plate are an adult male, and a young bird about a year old.

The male measures ten and a half or eleven inches in entire length; the wings, from the carpus to the tip, are nine inches; and reach, when closed, to the tip of the tail. The beak measures six lines in diameter from the forehead to the tip, and four lines and three-quarters in thickness at the base; it is sharp pointed, and has a prominent tooth, but the upper ridge is not much arched. The wings are long and pointed, the second quill-feather the longest, the first and third nearly of equal length. In the adult male the feathers of the thighs, vent, and under tail-coverts, are bright orange brown; the rest of the plumage is uniform slate colour, palest on the breast and sides. The legs and feet, orbits and cere, are orange red; the claws whitish flesh red; the iris dark brown; the beak blue, tinged at the base with yellow.

The adult female differs very materially from the male; on the mantle, scapulars, wing-coverts, and tail, her plumage has the same slate grey as in the male, but the feathers on these parts are barred with black: the forehead is whitish; the crown of the head pale rufous, the back of the neck is darker rufous barred with black; the throat and sides of the neck are yellowish white; the breast, belly, and thighs, are rufous brown, marked with a few longitudinal streaks down the shafts of the feathers, which marks are said to disappear with advanced age. The grey tail is crossed above with seven or eight dusky bars, the last near the extremity of the feathers the broadest, the tips are greyish white; the tail-feathers beneath are pearl white, showing the dusky bars through them; the under tail-coverts are white, clouded with rufous; the moustache and region of the eyes are blackish. The legs, orbits, beak, and cere, as in the male. The very old females are said to become paler on the under parts, the upper parts lighter grey, and the black bars narrower.



Pl. 11.

PLATE XI.

KESTRIL.

Falco Tinnunculus.

The Kestril is a bird of prey well known all over Europe. In America and in Asia it is also equally common. In Africa they abound, even as far as the Cape of Good Hope. In Europe, says Temminck, this species is not usually found beyond the regions of the arctic circle; its place being supplied in those countries by the Merlin. It appears to prefer rocky and mountainous localities to woodland, on account of its preference for the fissures and holes in rocks for the purposes of nidification and shelter: it is not, however, confined to such localities, but is found in greater or less abundance in all situations.

From its general distribution, its peculiar appearance when on the wing, and the little fear it appears to entertain for man, it is more frequently seen and better known than any of our indigenous Hawks.

When engaged in searching for its food, it will suffer the very near approach of an observer without showing any alarm or desisting from its employment, and continue at the elevation of a few yards from the ground with outspread tail and stationary, except the occasional tremulous flickering of its wings; then, as if suddenly losing sight of the object of its search, it wheels about and shifts its position, and is again presently seen at a little distance suspended and hovering in the same anxious search. We have occasionally watched a pair thus pursuing the chase together, for a considerable time.

Field mice are believed to constitute the chief food of the Kestril; but they occasionally take birds. They also pursue cockchafers and other flying beetles, which they devour upon the wing. Frogs and lizards become also their prey.

The nest of the Kestril may be found in crevices of rocks, or holes in high banks, in church towers, and in ruins: where such places are not to be met with, a hole in an old tree is chosen, or even a deserted nest of sufficient size. The eggs are frequently deposited in the bare cavity, at other times a few straws or loose feathers are brought to the spot. The female seldom deposits more than four eggs; these are of a roundish form, much resembling those of the Merlin in size and shape; they are rust yellow, spotted all over with brownish red, sometimes entirely brick-red, mottled with a deeper tint. The partiality of this species for towers and ruins as resting or breeding places has given rise in several countries to its local name. In Italy it is called Falco di Torre, and in Germany Thurmfalke, both signifying Tower Falcon. One of its provincial names in England is Kastril, which seems also to admit of the same interpretation.

The young Kestrils are at first covered with a greyish white down. Before they leave the nest they have acquired a garb resembling that of the adult female. At this age there is but little difference in size or colour between the sexes, but the bars upon the feathers of the females are rather broader and less distinctly marked than in the males. Four young ones, which had just been taken from the nest, were brought us; they were fully feathered, and scarcely any difference of plumage could be discerned among them. In this plumage they remain until the summer of the following year, when an alteration may be perceived in the colouring of the male, even before the commencement of the autumnal moult. The tail acquires a hoary grey colour near the base, the upper tail-coverts also partake of the same hue; when the moult takes place the brown barred feathers of the tail are exchanged for the characteristic grey ones; and subsequently the head also acquires the same colour. The barred feathers of the upper plumage give place to feathers of a brighter and fuller tint, and the black marks only remain in the form of a diamond-shaped spot near the tips of the feathers. These marks at the succeeding moult become smaller, and eventually disappear entirely upon the mantle. The irides of the adult Kestril are rich brown; when young, they are dusky with a tinge of grey; the legs and feet are stout, lemon yellow in the adult birds, as well as the cere, eyelids, and orbits, paler in the young birds; the claws are bright black and very sharp.

The beak of the Kestril is rather long and slender, and compressed towards the tip, of a pale blue colour tipped with dark horn. The wings reach within about an inch and a half of the tip of the tail, and measure about nine inches from the carpus to the tip. The first quill-feather is three-fourths of an inch shorter than the second and third, which are the longest in the wing; it is very deeply notched on the inner web. The quills are dusky on the upper surface, greyish white beneath, barred with a darker grey.

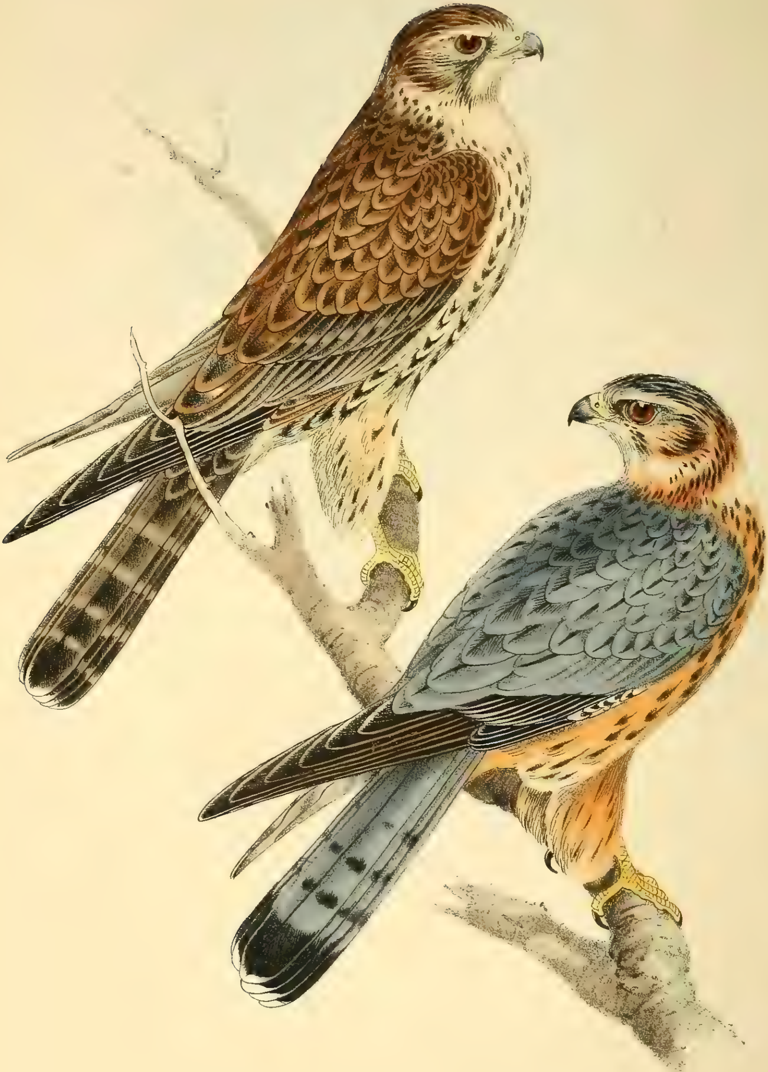
The tail-feathers are tipped with cream white, above which is a bar of brilliant purple black, occupying the space of about an inch and a quarter; and the middle tail-feathers are about an inch longer than the outer ones. The breast and belly are white, tinged with reddish ochre, and marked with dusky spots in the centres of the feathers; the thighs and vent are without spots.

The moustache upon the sides of the face is conspicuous in both male and female.

The Kestril is easily reconciled to captivity, and becomes extremely tame. One that we reared from a nestling exhibited the utmost docility and attachment to the persons it was accustomed to see. It lived on terms of perfect friendship with many small caged birds, and although the perch to which it was fastened by a chain often stood within reach of their cage, it never made the smallest effort to molest them.

This pretty creature would suffer itself to be caressed, and even appeared pleased with attention, and certainly looked upon us as its protectors. It always evinced great alarm at the sight of a black cat, which frequently entered the garden where it stood, in order to snatch from an aviary such of the small birds as should venture near the wires, and several luckless goldfinches did fall into its power. On the appearance of this terrible enemy, our favourite Hawk would utter redoubled cries until some one ran to its assistance; but if any of its human friends happened to be in sight, it took no notice whatever of the intruder, as if perfectly secure when in our presence.

The egg represented in the plate, and numbered 11, belongs to the Kestril.



Pl. 12.

PLATE XII.

MERLIN.

Falco Æsalon.

This beautiful little bird, although widely distributed throughout all the warm and temperate parts of Europe, appears to be nowhere very abundant, especially in this country, if we may judge from the various conflicting accounts of ornithologists and other observers respecting the season of its appearance in different parts of England, the locality it chooses for nidification, the colour of the eggs, and other particulars.

Bewick, although inhabiting the northern part of England, where it is now known to breed, describes the female of this species as the Merlin; and the adult male, which he considers a different species, under the designation of Stone Falcon. This error has long since been set at rest; but other discrepancies still exist respecting some portions of its history, which prove that the opportunities of observing its habits are not very frequent.

The Merlin may be distinguished from the Hobby when flying by its less slender form, and by the greater length of the tail in proportion to the wings. The same difference exists between the Merlin and the Kestril, the latter having a still longer tail and slower movements.

In character the Merlin is courageous, extremely wild, and shy. Although of small dimensions, this spirited little Hawk frequently attacks birds much larger and stronger than itself. Its usual prey consists of larks, swallows, linnets, chaffinches, goldfinches, and other small birds that live much on the wing: thrushes and plovers sometimes become its prey, and it is said to take quails and young partridges when it can surprise them flying, but it is not able to take birds of this size from the ground. It also, in common with other small Hawks, feeds upon cockchafers and other flying insects. When in pursuit of its prey in the open moors, in which it delights, the Merlin may be seen flying from stone to stone watching the larks and other small birds that frequent such situations. This habit of resting upon a stone has obtained for him in several countries appropriate names synonymous with its common English appellation—Stone Falcon.

The Merlin is indigenous in some of the northern counties of England, also in Scotland and the Scottish Isles. Monsieur Temminck, in the fourth volume of his Manuel d'Ornithologie, says the Merlin rarely breeds in the temperate parts of Europe, and only in the most elevated regions. During the breeding season, he observes, it inhabits Sweden and other northern parts, the rocky districts of Norway, and the island of Bornholm in the Baltic, and extends beyond the region of the arctic circle. In England, according to Mr. Selby, it breeds in the extensive upland moors of Northumberland, where he has frequently met with its nest placed in all instances upon the ground amongst the heather. The eggs of the Merlin, according to the same authority, are of a bluish white colour, marked with brown spots, principally disposed at the larger end.

The eggs appear subject to variation in colour: the one we have figured, which is from the cabinet of Mr. Yarrell, differs from those described by Mr. Selby, but agrees perfectly with the description Bechstein gives of the eggs of this species. According to Montagu, the Merlin does not visit the south of England until October, about the time that the Hobby retires; but we have reason to think that in some few instances this species passes the summer months more southward than the limits assigned by most authors, as we have received from Suffolk eggs perfectly resembling Mr. Yarrell's specimen.

That this bird is capable of enduring a high degree of cold we may conclude from the assertion of Monsieur Temminck that it is commonly found beyond the limits of the arctic circle.

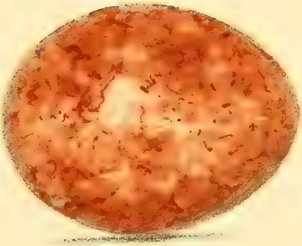
The adult male Merlin is from ten to eleven inches in length, and weighs five or six ounces. The wing from the carpus to the tip measures seven inches and a half; the tail extends an inch and a quarter beyond the points of the closed wings. The beak measures seven lines in length, and is not so much curved as in the preceding species; it is strong, and with the tooth prominent. The upper parts of this bird are of a fine blue stone colour, including the crown of the head, the back, scapulars, wing-coverts, and tertials. The crown of the head is streaked with black down the shafts of the feathers; the blue feathers of the upper plumage have also black shafts. The blue tail has a broad black band near the tip, and the specimen from which the plate was taken bore traces of three interrupted black bars; the tail-feathers are tipped with cream white. The primary quills are dusky above, paler, and barred with white, beneath. The second and third quill-feathers are the longest in the wing; the first is a little shorter than the fourth; the first and second feathers are strongly notched on the inner web, the second and third sinuated on the outer web. The forehead and throat are white; round the neck is a reddish brown ring spotted with black; the cheeks are the same above and below the eye is pale reddish white; from the corners of the mouth run a few black streaks pointing downwards, indicating the characteristic moustache which all true Falcons possess in a greater or less degree. The under wing-coverts are yellowish white with dusky spots and streaks. The under plumage is rufous, each feather upon the breast and flanks marked down the shaft with a dusky streak; the thighs are rufous with narrower streaks; the legs and toes, cere and eyelids are yellow; the beak is blue at the base and tipped with dark horn; the irides dark brown.

The female differs very much from the male; the grey colour which is so prevalent upon his plumage is only perceptible in hers upon the scapulars and wing-coverts, where it occupies the centre of each feather; these feathers are bordered with rufous and have black shafts. The greater coverts of the wing, and upper coverts of the tail, are brown, bordered with dirty yellowish white. The tail is greyish brown, tipped with yellowish white, and crossed with fine yellowish white bars. The throat is plain white; the ring round the neck, the breast, and under parts are yellowish white streaked and spotted with dusky; the nape of the neck and thighs tinged with rufous. The crown of the head and nape are rich reddish brown, with dusky streaks down the shafts of the feathers; forehead and streak above the eye yellowish white; the ear-coverts grey and brown.

The young male birds much resemble the female above described, but have no grey in the centre of the feathers on the upper parts, these being dark brown bordered with rufous.

The young females wear nearly the same dress as the young males, but they may be distinguished by their larger size. In young birds of both sexes, the legs, cere, and orbits, are greenish yellow.

The Merlin's egg is represented in the plate, and numbered 12.



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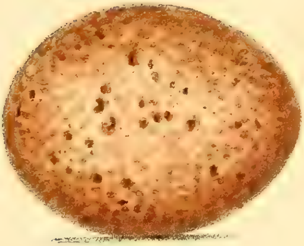

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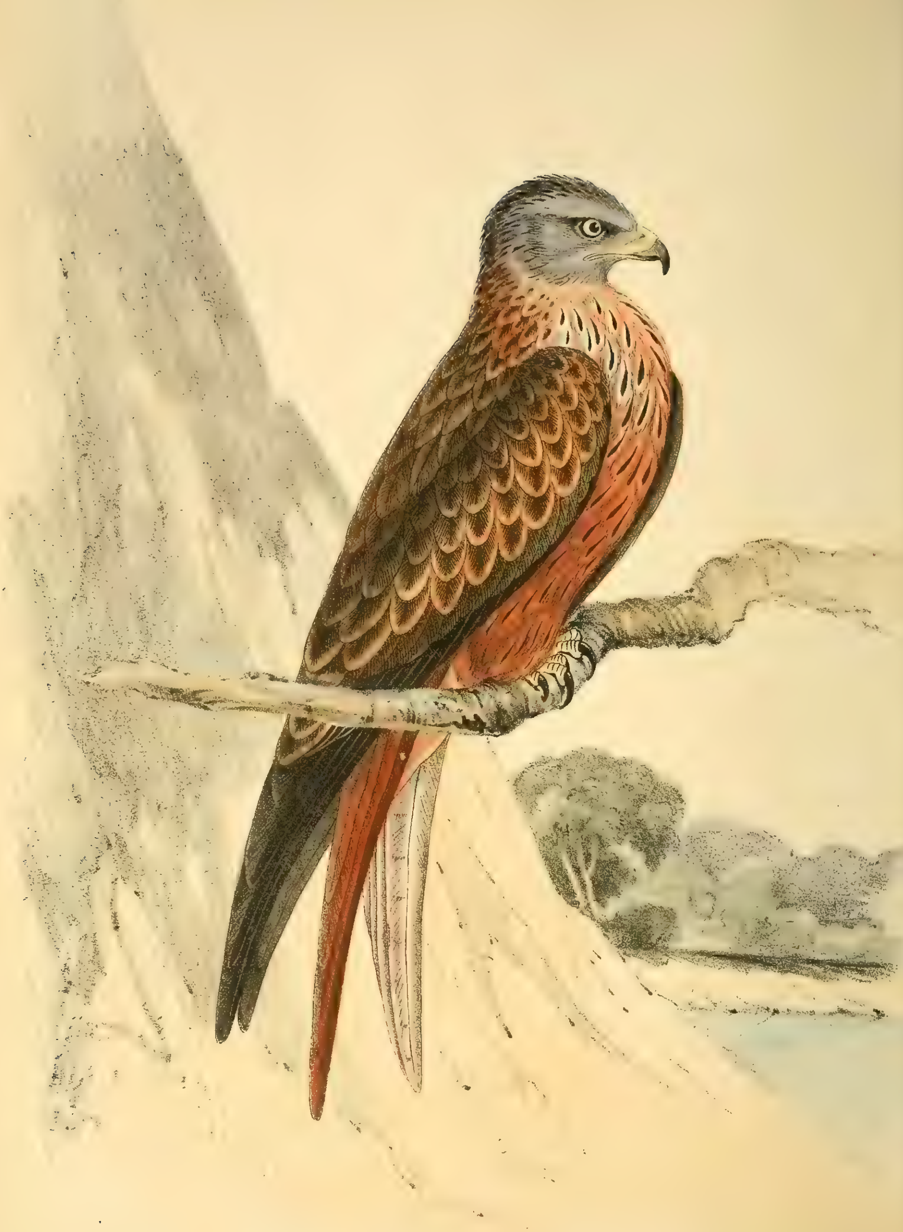

Pl. 13.

PLATE XIII.

KITE.

MILVUS ICTINUS.

THE KITE is not very numerous in Britain as a species, and but partially distributed; being tolerably abundant in some districts, and in others rarely seen. It is, nevertheless, a bird well-known, partly on account of its peculiar flight and appearance, which render it easily distinguishable from all other predaceous birds; and still more, perhaps, on account of its habits, which render it peculiarly obnoxious to man, from its partiality for the young of various species of game, as well as for the cherished nurslings of the farm-yard.

This species was formerly much more plentiful than it is at present; the increasing cultivation of territories formerly left in their natural wild state of moor or woodland, and the growing desire to preserve game, having operated upon this, as upon all others of the predaceous tribes, in decreasing their numbers, and limiting them to those localities that still remain in a state suited to their mode of life.

The localities now best known as the resort of Kites, are wooded districts in Cumberland, Westmoreland, and some parts of Yorkshire. In Scotland, according to Mr. Selby, it is more abundant, occurring plentifully in the vicinity of Loch Katrine, and Loch Awe, as well as about Ben-Lomond. It is partial to the neighbourhood of lakes and rivers, the waters of which supply a considerable portion of its customary food. It is also found in Wales.

The Kite is considered a heavy and sluggish bird, and its appearance when perched might seem to justify that opinion, but for a restlessness in its brilliant eyes, and a sinister expression of countenance, that seem at variance with a dull and heavy character; and even in confinement, when moving about its cage from perch to perch, the Kite exhibits a lightness, grace, and ease of motion, that prepare the observer to expect the buoyancy of flight and power of wing that so eminently characterize its actions in a state of liberty.

The length of wing possessed by this species gives an expanse greatly disproportioned to its weight, which does not exceed two pounds and a half, and enables the bird to sustain itself for a great length of time in the air without fatigue. Its flight is slow and graceful; for hours it may be seen floating in the air with little movement of the wings; its tail is, however, continually in motion from side to side, directing the movement of the body. It sometimes rises to a great elevation, in slow and repeated circles, mounting and soaring until lost to sight.

The elevation to which some species of birds rise is truly astonishing. Humboldt, observes Mr. Kirby, says that the Condor soars to the height of Chimborazo, an elevation almost six times greater than that at which the clouds that overshadow our plains are suspended.*

This power of rising to such surprising elevations, is chiefly attributable to the means with which birds are endowed of receiving air at pleasure into certain parts of their bodies. Mr. Kirby, speaking on this subject in the interesting work before referred to, says, "Of all animals, birds are most penetrated by the element in which they move; their whole organization is filled with air, as the sponge with water; their lungs, their bones, their cellular tissue, their feathers,—in a word, almost every individual part admit it into their interstices; thus giving them a degree of specific levity that no other class of animals is endowed with: which, however, does not render them the sport of every wind that blows, for by means of their vigorous wings formed to take strong hold of the air, of their muscular force, the agility of their movements, and their powers of steerage by means of the prow and rudder of their little vessel, their head and tail, they can counteract this levity." Rennie enters further into this subject; he says, "The lungs of birds have several openings communicating with corresponding air-bags or cells, which fill the whole cavity of the body from the neck downwards, and into which the air passes and repasses in the process of breathing. This is not all: the very bones of birds are hollowed out with the design of receiving air from the lungs, from which air-pipes are conveyed to the most solid parts of the body, and even into the quills and plumelets of the feathers, which are hollow or spongy, for its reception. As all these hollow parts, as well as the cells, are open only on the side communicating with the lungs, the bird requires only to take in a full breath to fill and distend its whole body with air, which, in consequence of the considerable heat of its body, is rendered much lighter than the air of the atmosphere. By forcing this air out of the body again, the weight becomes so much increased, that birds of large size can dart down from great heights in the air with astonishing velocity." *

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* Kirby's Bridgewater Treatise, vol. ii. p. 473.

Kites choose for their breeding-place forests, or copsewood, without showing any decided preference for mountainous localities; and are often seen in spring, rising in their beautiful and circling flight above these chosen spots, uttering their clear note of joy. The situation selected for the nest

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* Insect Transformations.

is a lofty beech, oak, pine, or fir; the structure is large, and formed of dry branches; it is lined with straw, moss, or wool, or similar warm substances. The eggs, which are three or four in number, are white, clouded with a dirty greenish colour; sometimes spotted, as they are represented in the plate, sometimes plain. Incubation lasts three weeks, during which time the female is assiduously fed and watched by the male bird. The nestlings occasionally betray their place of retreat, by the cries they utter whenever the parent birds approach.

The food of the Kite is of a very varied character, and consists chiefly of what can be taken from the ground; such as young hares, mice, snakes, efts, frogs, and toads; also grasshoppers and other insects. The Kite is a great destroyer of young ducks, geese, and poultry, when he can meet with them unprotected; but not being of a daring character, except when much pressed by hunger, he is easily driven from the pursuit of them. Nevertheless, in defence of their own young when molested, the Kites display much boldness as well as affection. It has also been observed to take live fish; and, in default of living food, carrion, and even dead fish, snatched as they float from the surface of the water, are not rejected.

The services of the Kite, however, in destroying obnoxious animals and removing offensive carrion, are overlooked or forgotten, when in an evil hour it comes within reach of the farmer whose poultry-yard has been robbed by this bold intruder; the luckless carcase of which is henceforth doomed to grace the walls of the barn or cow-house, as many of its fellows have done before.

The Kite, although indigenous in Britain, and resident throughout the year, has been observed to shift its quarters from time to time according to the season.

On the continent of Europe, where it is found from south to north, as far as Sweden and Norway, it is decidedly migratory, especially in the northern parts above latitude fifty-two or fifty-three degrees; retiring from thence to warmer regions as winter approaches, being unable to sustain the inclemencies of a northern winter.

According to M. Boié, the Kite is very common in Denmark, where numbers arrive in the spring; but a very small portion of these, however, remain during winter. Their migration is performed usually in flocks; sometimes from fifty to a hundred may be seen together. During these migratory flights they proceed along the open country, flying low, and from time to time settling on the ground to rest themselves, and in this manner slowly pursue their route. Many are supposed to winter on the southern side of the Mediterranean.

By Bechstein and other German authors this species is called Rother Milan, or the Red Kite, to distinguish it from another species which somewhat resembles it, but is much darker in the tints of its plumage. With us no such distinction is necessary; the Common Kite being the only bird of this species that is found here, with the exception of the rare straggler which forms the subject of the following plate.

The living specimen from which our Kite was drawn, was one of two very fine birds, male and female, kept in the menagerie of Mr. Cross, of the Surrey Zoological Gardens; in which excellent collection we have had the opportunity of sketching several birds not commonly to be met with.

The entire length of the male Kite is about two feet two inches, and the expanse from wing to wing five feet; the female is larger, measuring in length about two inches more than the male, and in expanse exceeds him by about six inches. The tail is broad, and much forked; the middle feathers measure about twelve inches; the outer, fourteen and a half or fifteen inches; the tips of the wings, when closed, reach nearly to the end of the tail. The beak is long, with very little appearance of a tooth, consisting only of a shallow festoon; the tip of the upper mandible rounded. The nostril is oval, and bordered by a fold on the outer edge. The beak is black at the tip, bluish towards the base, and in very old birds yellow; the colour of the iris is silver-white, but acquires a yellow tinge in very old birds. The beak measures in diameter, from forehead to the tip, one inch and three-eighths, in the arc one inch and a half, and is only three-quarters of an inch thick at the base. The feet are small in proportion to the size of the bird; the tarsi are feathered for about an inch below the knee, the naked part in front scutellated, and measuring together two inches and a half; the outer and middle toes are united by a membrane.

The adult male bird has the entire head and throat whitish grey, lightest upon the forehead and chin, the shafts of the feathers black; in some specimens the head inclines more to rufous than to grey. The feathers of the head and neck are acuminate, as well as those of the breast and tippet. The quill-feathers, and larger coverts of the wings, are blackish brown; all the rest of the upper plumage reddish brown; the central part of each feather dusky. The feathers of the breast and under parts are reddish orange, darkest upon the thighs; those of the breast are marked down the shaft with a streak of fine black, bordered with white. The tail and upper coverts are of the same orange colour as the breast, with dark shafts; the outer feathers dusky along the edge, and crossed with dusky lines; the tail-feathers beneath reddish white, with seven or eight indistinct bars of a dusky colour, showing through from above. The female has nearly the same colour and markings as the male; the variations admit of little distinctness in description, although when seen together the difference may be perceived.

In young birds of the year the feathers of the head and neck are less long and pointed, and are reddish, tipped with white; and the upper parts of the body are more rufous than in the adult. The effects of light and sunshine are particularly observable in the colours of this bird; the bright rufous in the new feathers of the young birds of the year becomes very much faded, and changes to a pale yellowish rust colour, before the next annual return of the autumnal moult, which occurs about August.

These gradual changes of colour, from the effects of the atmosphere, from the wearing away of the edges of the feathers by friction, and from the daily increasing age of the birds, are the causes of the different descriptions of different authors, and of the varied appearances to be seen among cabinet specimens; although, probably, all birds of the same species resemble one another in their respective stages of growth.

The egg, figured 13, belongs to the Kite.

PLATE XIV.

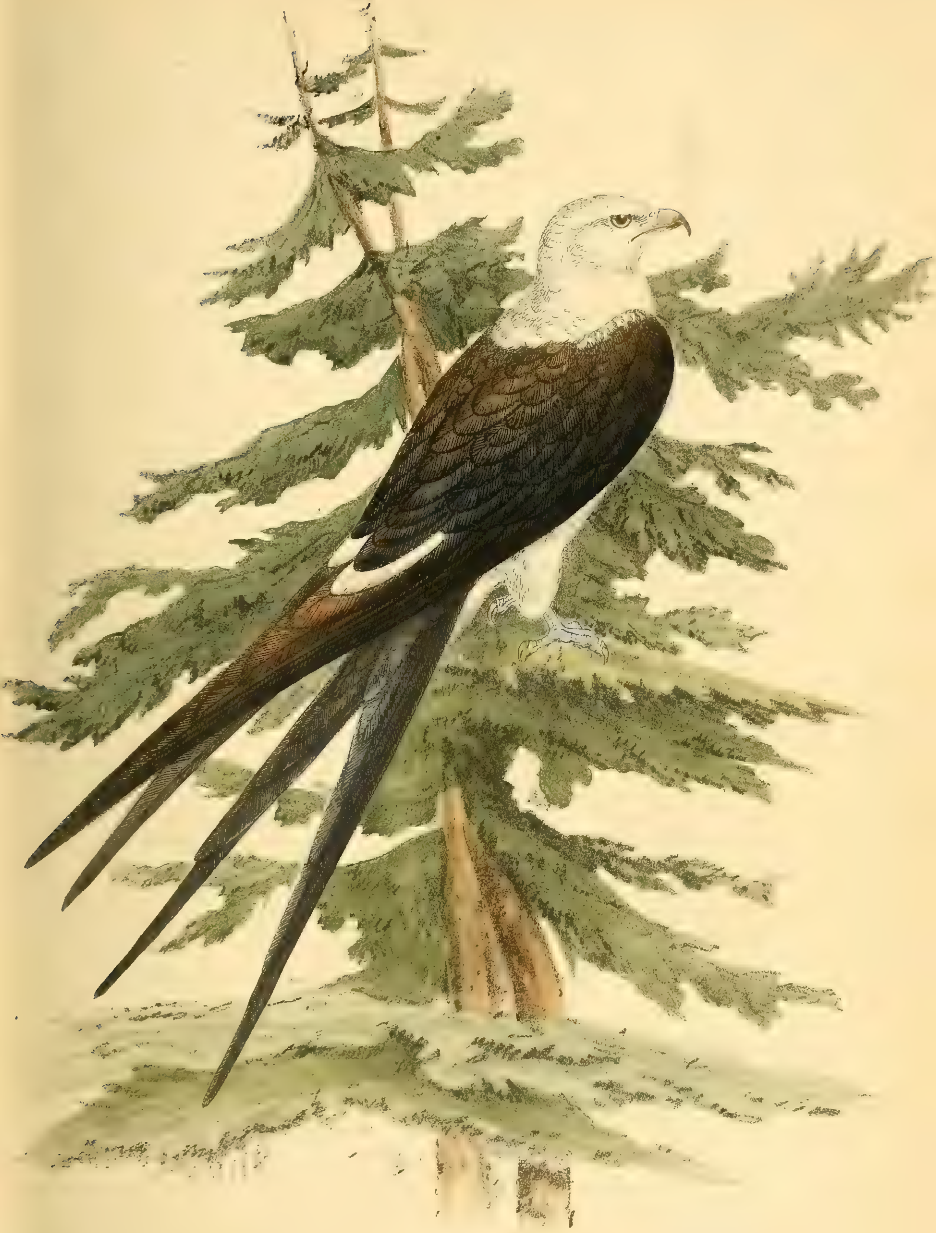
SWALLOW-TAILED KITE.

Nauclerus Furcatus.

This very rare species, a native of North America, has in two instances only been recorded to have visited Great Britain, driven probably by contrary winds from its periodical course of migration through the American States. The first of these occurred many years ago, in the year 1772, in Argyleshire, and the second in Yorkshire in 1805 ; since which period no instance of its capture is known to have occurred.

This elegant bird bears much resemblance to our common Swallow in its form and manner of flying, in the length and shape of its prolonged tail-feathers, and also in its manner of taking its prey, which is always captured and devoured upon the wing. By American authors we are informed that the evolutions they perform when on the wing in pursuit of their prey are remarkable for grace, ease, and rapidity. This consists chiefly of aerial insects, with which the countries they inhabit abound : they also feed upon reptiles, which they sweep from the surface of the ground, or take from the branches of the trees when passing along ; but they are said in all cases to eat their prey while on the wing.

They are found in the warmer parts of North America ; also in a similar latitude south of the equator, towards which they migrate at the approach of winter. They usually asso-



Pl. 14.

ciate together in flocks, and while on their migratory passages are seen travelling in large companies.

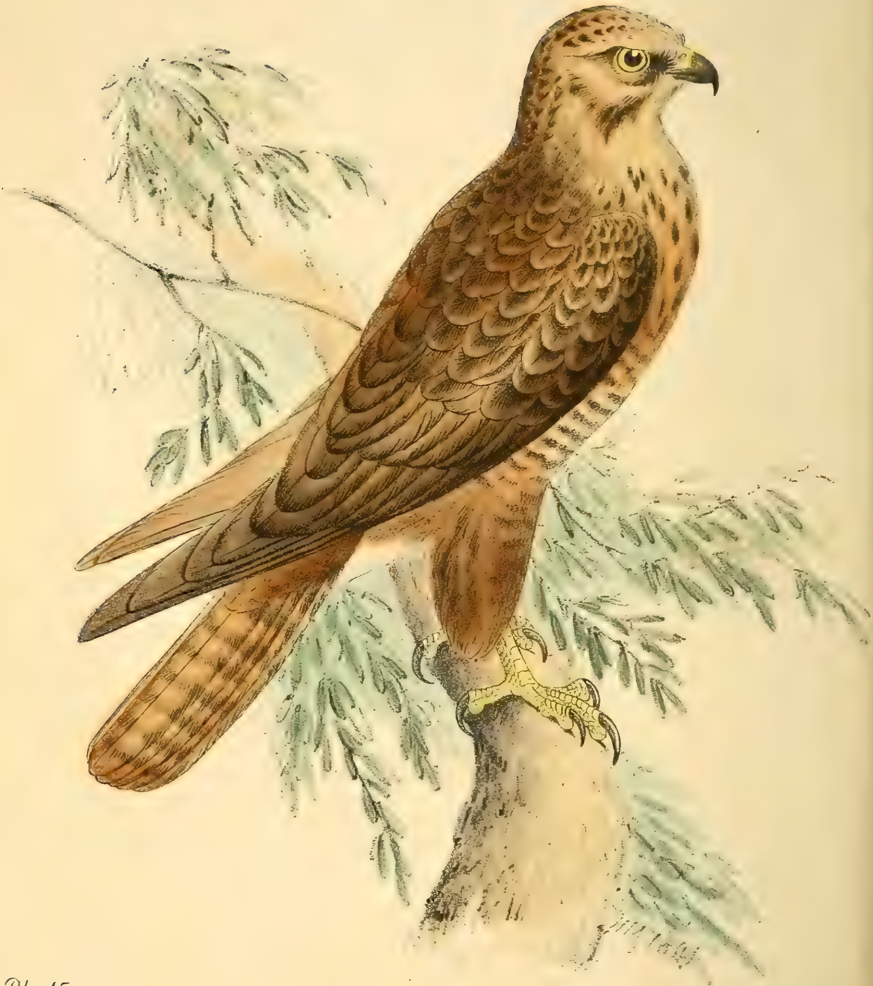
The loftiest trees are selected by this species for their place of incubation, in low and marshy situations. The nest is formed of sticks and coarse grass, and lined with warm materials. The young, in their nestling state before the appearance of their feathers, are covered with down of a yellowish colour: the plumage of the first year resembles that of the adult, but, as is usually the case in young birds, it wants the gloss and changing tints that play upon the plumage of the older ones.

The eggs are said to be greenish white, marked irregularly at the larger end with blotches of dark brown.

The length of the Swallow-tailed Kite is about twenty-four inches; the wing from the carpus to the tip is sixteen inches, and the tail extends about three inches beyond the closed wings. The toes are entirely divided; the middle toe and claw measure about one inch and five lines, the hind toe and claw about one inch two lines, of which half is occupied by the claw.

The beak measures from the forehead to the tip one inch and one line in diameter, about two lines more in the arc; it is hooked and drawn to a fine point. The lower line of the beak, from behind the tip to the gape, is rather undulating than toothed; the nostril is oval, and the cere covered with radiating hairs. The legs are feathered half-way down the tarsus, the naked parts reticulated. The anterior joints of the toes are scutellated. The quill-feathers are long and narrow; the third a little exceeds the second in length, and is the longest in the wing.

The tail consists of twelve feathers, and is much graduated. The head and back of the neck, as far as the junction of the wings with the body, are pure white, as well as the whole under parts, from the chin to the under coverts of the tail inclusive: a few white feathers are also perceptible along the inner line of the wing, where they are more or less covered by the scapulars. The whole upper plumage is a rich black, with purple, and green, and orange reflections, particularly on the scapulars and some of the tertials, towards the longest of the tertial feathers, which is white: the tail and upper coverts are black. The cere is described by Audubon as blue; the legs are greenish blue, with the claws flesh colour.



Pl, 15.

PLATE XV.

BUZZARD.

Buteo Vulgaris.

Although included in the genus Falco of Linneus, the birds of this class differ from the Eagles and Falcons in many modifications of form, but still more in their character and manners. Although of large size and powerful form, they are cowardly and sluggish in disposition, and slow in their motions. In their manner of flying they bear much resemblance to the Owls, to which they approximate also in the softness and looseness of their feathers. They fly low, hardly above the level of the hedges, in search of their terrestrial prey; and are seen to visit the same fields daily, and frequently at the same hour, as if mechanically performing their accustomed route. Sometimes they sit concealed among the bushes watching lazily for their prey.

This species is of common occurrence in wooded districts, and in such situations it is very generally diffused throughout Europe. It is indigenous in England, and remains with us throughout the year. On the continent of Europe it is numbered among the birds of passage; even in Holland it is not at all times to be met with. Temminck speaks of them as arriving in autumn, and remaining only part of the winter in that country; at which time they disperse themselves along the downs that border the sea-coast. They migrate, he observes, in small companies, associated frequently with the

Rough-legged Buzzard. In Germany this bird is still more abundant than in Holland at particular seasons of the year, when pursuing their migratory course. At such times they are seen in flocks of more than a hundred: they fly slowly, and irregularly dispersed, sometimes rising and circling in the air, so that their passage is leisurely performed.

Those stragglers which arrive singly rest where they meet with a bush or shelter, and remain for days or weeks about the spot to recruit their strength, and then proceed on their voyage; and their places are supplied by fresh comers pursuing the same compulsory migration in search of food. In the corn countries of the Continent this bird is of essential use in destroying immense numbers of field-mice and similar depredators, which, but for this seasonable check, would destroy the hopes of the succeeding harvest. Yet, notwithstanding the disgusting food consumed by the Buzzard, which includes not only mice, but moles and carrion, this species is considered a great delicacy in some Continental countries, and eagerly sought after as an article of food.

The Buzzard is a short, stout bird, with large and broad wings: he is generally seen flying low, and resting from time to time upon a little eminence, watching for mice or moles, or he may be seen perched upon the branch of a tree. He wants the energy to pursue flying birds, and is said not even to catch partridges or pigeons, unless they are sick or weak. We are, however, disposed from observation to think that the Buzzard sometimes displays more energy than is attributed to it. One, which is frequently about in this neighbourhood, and appears to have nestlings in a wood at a little distance, has several times shown a disposition to sweep off one of a young brood of black turkeys now about the size of partridges.

In his search for moles, the Buzzard is said to show much sagacity. In his usual patient manner he sits upon a stump, or upon the earth, near the mound inhabited by this quadruped, and watches for the stirring of the soil: as soon as he perceives a movement, he pounces with both feet upon the mound, and if successful drags forth the unfortunate animal and devours it.

Whether in thus destroying moles the Buzzard deserves to be considered as the friend or the enemy of the agriculturist is a doubtful question, for the able discussion of which we must refer our readers to the highly interesting account of that extraordinary animal in Mr. Bell's admirable work on British Quadrupeds.

The partiality of the Buzzard for moles, and the means employed for capturing them, explain the reason of this bird being often found with its feet covered with mud and earth. Field-mice are also a favourite repast with the Buzzard, and seven or eight have been found in the stomach of a dissected bird. Besides the above-named articles of food, this species preys upon young hares and rabbits, rats, frogs, and snakes, also upon birds and insects.

These birds pair early in March, and about this time are seen sporting in circling flight above their retreat in the manner pursued by many other birds at the same season. The place chosen in which to construct their nest is a lofty fir, oak, or other forest-tree of similar size: the nest is flat, and consists of sticks lined with moss or hair. Frequently, to save the labour of constructing their nest, these indolent birds take possession of the old habitation of some other bird, or repair their own nest of the preceding year. The eggs are usually three, and the young birds when hatched are covered with a whitish down. They are assiduously fed and tended by the parent birds, and remain a long time in the nest, and after quitting it require still, for a considerable period, the parental care of the old birds.

No birds vary more in the colour of their plumage than the Buzzard. Brown, white, and grey, are the prevailing tints, and these are variously disposed upon different individuals, so that hardly any two birds are alike. These differences are said not to depend upon the different ages or sex of the individuals. The old birds can only be distinguished from the young, when dissected, by the toughness of the sinews and hardness of the bones. As little as these different colourings have to do with age or sex, so little can they be considered as indicating different species; since, with exception of colouring, these birds resemble one another perfectly, and breed together: the young of such parents partly resemble the male, and partly the female. The individual from which the plate was taken, represents the most usual colouring of the common Buzzard. This may be distinguished at a little distance by the bars that cross the body above the thighs. Temminck considers the Buzzards to differ as much in the colours of their plumage as the Ruffs. They may, nevertheless, be divided into three or four principal varieties; one of which resembles in a great measure the one figured in the plate, has the entire colouring dark brown, with lighter borders to the feathers, except the lower part of the breast and the inside of the thighs, the feathers of which are barred with alternate bands of dark brown and white; the under tail-coverts and inside of the wings barred in a similar manner. Birds of this description have the cere and legs full yellow; the beak grey, tipped with black; and the iris of the eyes reddish brown. A still darker variety is sometimes seen, which, at a little distance, appears perfectly black. The entire plumage of this variety is a dark chocolate colour, the tips of the quill-feathers black, and the dark feathers of the tail crossed by narrow lines of ash-colour. Buzzards of this sombre colouring have the cere and feet dark in proportion, approaching to orange; the iris is also of a fuller brown than in the preceding.

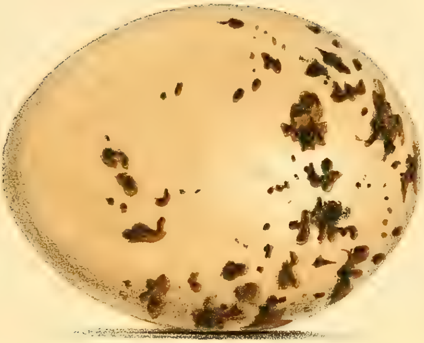
A beautiful variety, of which there is a specimen in the Zoological Museum, is also occasionally seen, but is comparatively rare. The ground of the plumage in this variety is white, tinged in various parts with yellow. The head is marked down the centre of the feathers with narrow streaks of brown ; a few of the feathers on the breast are marked with arrow-shaped spots of the same colour, the smaller coverts of the wings the same. The quill-feathers are dark brown towards the tips ; the tail is crossed on a white ground with dark brown bars seven or eight in number, the bar nearest to the white tip broader than the rest. In the white variety the eyes also partake of the light colour of the plumage, and are pearl-coloured or greyish white : the cere and feet are also lighter in the same proportion, being a pale lemon-yellow.

In all specimens of the Buzzard the bars that cross the tail appear the only permanent marks, which are found equally in all the varieties, differing however in number from six to twelve.

The entire length of the Buzzard is twenty-one or twenty-two inches, and in breadth about four feet six inches. The beak is long in proportion to its depth, and its form does not indicate much strength ; the upper mandible is rather sinuated than toothed, but the point of the tip is sharp and prolonged. The legs are rather short, the tarsi scutellated in front ; the toes are scutellated about half their length, the rest towards the junction with the leg reticulated : the middle toe has eight scales, the outer five, the hind and inner toes four. The claws are not much hooked. The tail is square, and the wings reach nearly to the end of it ; the fourth quill the longest.

The head is large, and the whole aspect of the bird heavy.

The egg, marked 15, belongs to the Buzzard.



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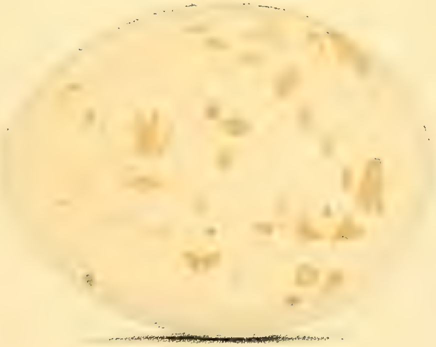

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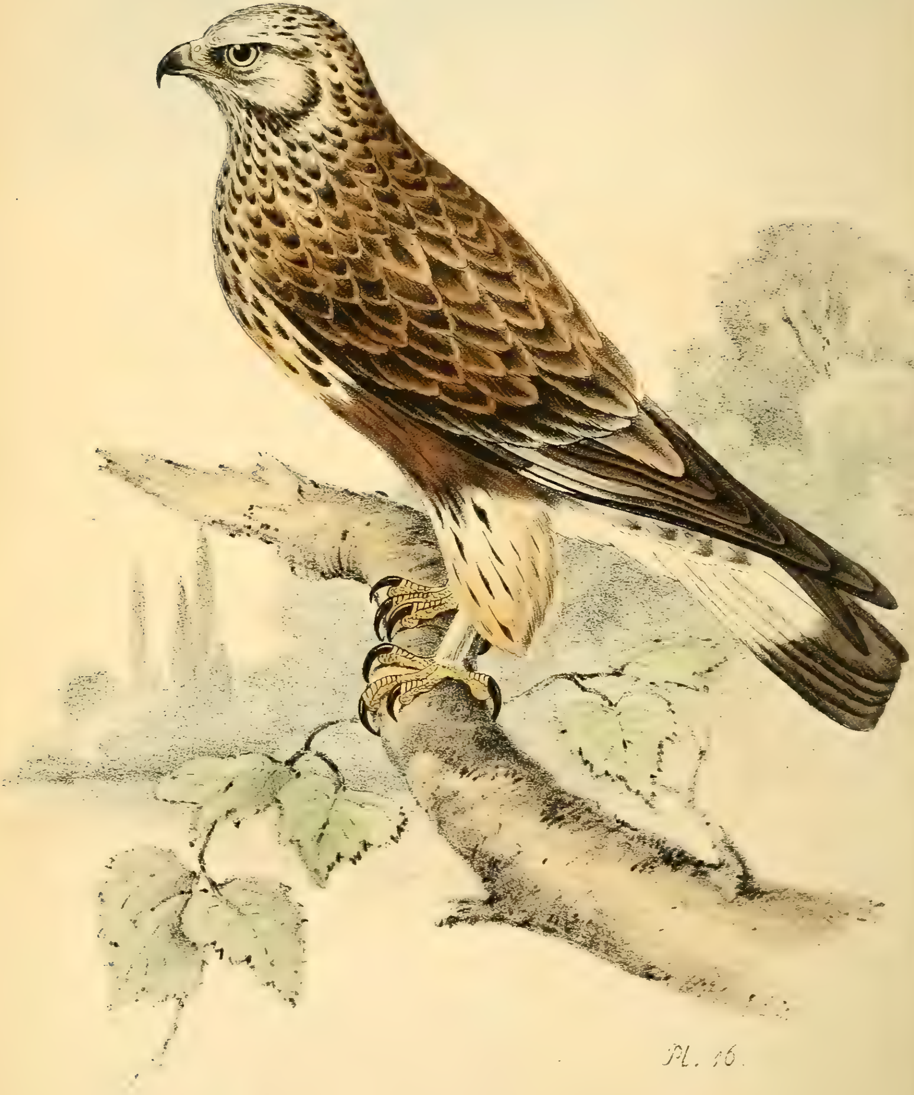


Pl. 16.

PLATE XVI.

ROUGH-LEGGED BUZZARD.

BUTEO LAGOPUS.

THE Rough-legged Buzzard is found in nearly all parts of the world, and in all latitudes, from the southern parts of Africa to the Arctic circle. These northern regions are, however, only visited during summer or the breeding season, and deserted on the approach of winter: this species is, consequently, less stationary in its place of residence than the common buzzard, being in the northern a summer, and in the equatorial countries a winter visiter, and chiefly known in the central parts of Europe during its vernal and autumnal migrations.

In England, the Rough-legged Buzzard is much less common than the preceding species; it has, however, been met with occasionally at all seasons, and although most frequently seen in spring and autumn, has been observed in winter by Mr. Selby, and has also been seen in the summer in Yorkshire, where it has been known to breed.

Open country, interspersed with wood and marshy land, is the favourite resort of this species: in such places it may be seen sitting with drooping wings and ruffled feathers. Its flight is slow and noiseless, and performed apparently without much exertion: this exercise is frequently continued until a late hour in the evening, approximating in this respect, as well as in its noiseless flight, to the habits of the owls. The woods in the vicinity of its hunting ground afford a retreat to this Buzzard during the night, and if undisturbed it will resort nightly to the same tree as long as it remains in the neighbourhood.

In their migrations these birds do not usually associate in flocks like the common buzzard, but travel in pairs or in small companies of four or five, being, most probably, the members of an individual family.

The food of the Rough-legged Buzzard consists of leverets, moles, and other small quadrupeds, especially mice, to which it appears very partial; it also eats reptiles, such as frogs, lizards, &c., and insects. Birds constitute part of its food, and in taking them it appears more enterprising than the common buzzard, attacking, when pressed by hunger, wild ducks and other birds of similar size.

The habit of this bird of sitting with its feathers ruffled gives it an appearance of greater size than it really possesses: the length varies according to the sex, from twenty-one inches to twenty-five.

The Rough-legged Buzzard breeds in high northern climates, in Norway and other countries of similar latitude, both in the old and in the new world. The nest has been described by northern naturalists as greatly resembling that of the common buzzard, and placed in a lofty forest tree. The eggs are three in number, greenish white, with pale brown spots. We have not been able to obtain a sight of the eggs of this species, and are therefore indebted to a foreign work by Dr. Thieneman for a representation of one.

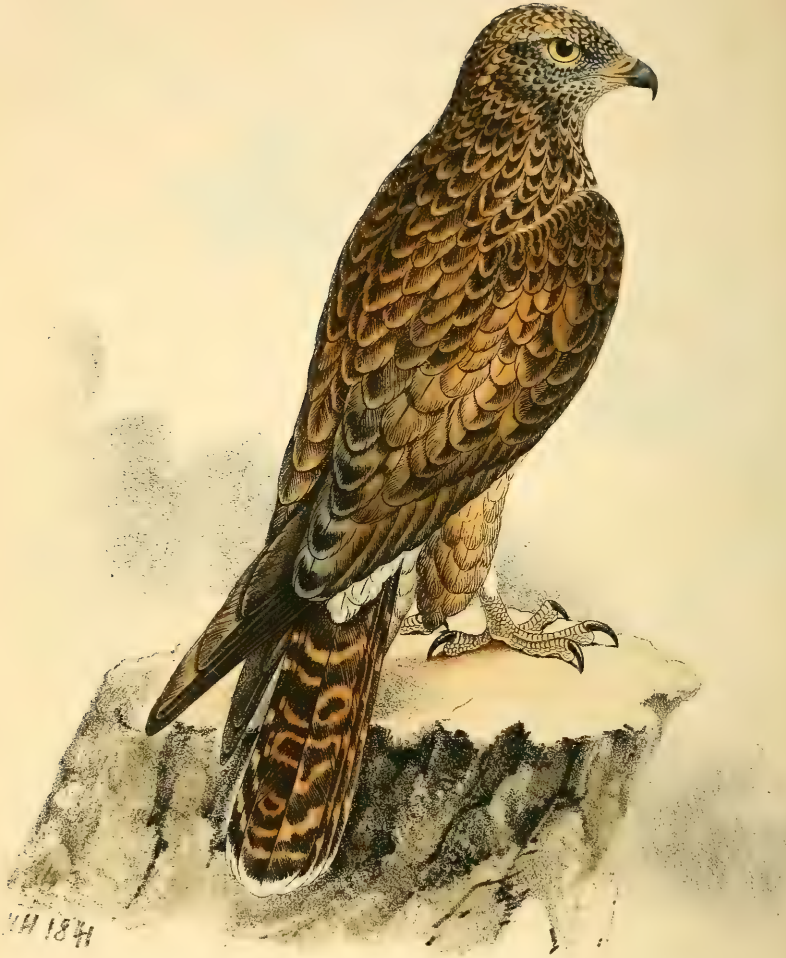
Although rather of uncommon occurrence in England, this bird is very frequently met with on the Continent in a similar latitude. Temminck speaks of it together with the common buzzard as one of the most numerous species frequenting his country; we may therefore infer that its manner of progressing in its migrations is by short journeys from one clump of trees to another, and that it generally avoids the longer flight that must be incurred in passing from the southern parts of the Continent to England, and thence onward towards its northern breeding stations. Suffolk and Norfolk, and other parts of the eastern coast, being in the direct line of its migrations, are more frequently visited than any other part of England.

Great variations of plumage are observed in this, as in the preceding species, although not quite to the same extent. The most prominent character which distinguishes this species at all periods is the white that always prevails more or less upon the basal half of the tail feathers, and the white breast and dark brown shield upon the lower part of the belly are common to most specimens.

The beak of the Rough-legged Buzzard is small and weak, a good deal hooked, but without a tooth : the colour is black at the tip, and bluish horn at the base; the nostril is oval and placed in a slanting direction ; the cere and corners of the mouth are fine yellow. The tarsi are feathered down to the junction of the toes, resembling some species of the owls. The outer and middle toes are united by a membrane ; the toes are all reticulated at the base, or junction with the tarsus, with several broad scales towards the claws. The inner and hinder toes have each four scales, the middle toe seven, the outer five. The lore, according to the observations of Mr. Selby, is covered beneath the dark radiating hairs with small feathers, showing an approach to the feathered lore and face of the honey buzzard. The first and second quill feathers are short, the third and fourth the longest in the wing.

The bird represented in the plate is in the colouring most usually seen in this species, and exactly resembles those described by Montagu, Selby, and Temminck, and appears common to both sexes. The entire length of this specimen was twenty-two inches. The wings, which reach nearly to the end of the tail, measured fifteen inches; the tarsus three inches; the middle toe, including the claw, two and a quarter inches, and the hinder toe and claw about two inches. The feet are yellow; the iris yellow in the greater number of specimens, but, like those of the common buzzard, subject to variation, being in some brown and in others greyish white.

A very dark mottled specimen is sometimes obtained, but does not appear yet to have fallen into the hands of any British naturalist. It is in its general aspect much darker than the one figured; the whole head, neck, and breast, are black, the feathers bordered with reddish white; the band above the thighs is white, crossed with black lines; the thighs and feathered tarsi are rufous, crossed with many narrow black bars, the black occupying rather the greater portion: in these specimens the tail is white, banded near the tip with a broad black bar, above which are four or five narrower bars of the same colour. In some of these specimens the throat and sides of the body are quite black, very narrowly streaked with yellowish white: these are considered to be the oldest birds. In autumn, after moulting, all are darker than in the summer, at which time the plumage has become faded. Temminck describes this variety but does not say to what age he considers it referable. The egg marked 16 belongs to the Rough-legged Buzzard.



Pl. 17.

PLATE XVII.

HONEY BUZZARD.

PERNIS APIVORUS. *(Cuvier.)*

THE Honey Buzzard is of a more slender form than the two preceding species, and the tail is longer in proportion to its size, giving to its whole appearance a much lighter character. This species, which is now classed among the genus Pernis of Cuvier, departs still more than the buzzards from the characters attributed to the birds of prey. The beak of the Honey Buzzard is weak and lengthened, the legs are also rather slender, the toes and claws long, and the latter but little hooked; and the description of food sought by it is in conformity with these deviations from the Raptorial characters, consisting chiefly of insects and their larvæ.

The Honey Buzzard is known in most parts of Europe and Asia, with the exception of the colder regions of the North, to which it is believed not to penetrate. It is spoken of as inhabiting Norway and Sweden, Russia and Denmark,—we conclude as a summer visiter,—in which case these and similar latitudes in Asia must be the native regions of the greater number of this species; but on this subject most of the authorities to which we have referred are silent: it is, however, known to breed occasionally in the middle of the European Continent, where it appears in April, and seldom is seen later than September. Some uncertainty seems to prevail with regard to the summer retreat of the Honey Buzzard; but as it is known that this species seeks, as food for its young, the bee and the wasp in their immature state, it is natural to suppose that at the season of reproduction it would seek the countries most likely to afford this necessary sustenance. These countries lay in the eastern parts of Europe, such as Turkey, Hungary, and the south of Russia, which are known as the most productive of honey; also the borders of the Levant. In confirmation of this supposition that these eastern parts are most frequented during summer by this bird, it may be remarked that many are seen during their autumnal migration pursuing their course from the east in a westerly direction. In England it is but rarely seen, and must be ranked among occasional or accidental migrants. It is chiefly confined to the eastern coast of Britain: some few instances are also recorded of its occurrence in the southern counties; and as it has generally been spoken of in connexion with summer insects, such as dragon-flies, the larvæ of wasps, &c., as constituting its food, it is to be supposed that its appearance in this country is confined to the summer months, and that it passes the winter further to the south. White of Selbourne speaks of having taken an egg of this species from a nest in Selbourne Hanger in the middle of June: September and October are mentioned by Mr. Selby as the period when two specimens occurred in Northumberland and in Berwickshire; but later than October we do not find any mention of its appearance in this country. According to Temminck, it is very rarely met with in Holland; it is more abundant in France, especially in the department of Vosges: but he speaks of it in all as a bird of passage.

The Honey Buzzard is observed to frequent the skirts of woods or forests bordering upon open country, usually in the vicinity of water, to which it is attracted by its partiality for aquatic insects and reptiles. It is occasionally seen flying low, from tree to tree, or skimming over the water in pursuit of its prey ; sometimes it remains quietly seated on a lonely tree on the outskirts of a wood, for hours at a time, with the sharp scale-like feathers of the head erect, forming a sort of crest, and the feathers of the body ruffled and loose.

Besides the food already mentioned, other insects are also sought for by the Honey Buzzard, and either captured on the wing, or pursued upon the ground, on which it has been observed to run swiftly. Caterpillars, worms, moths, beetles, and the remains of frogs, mice, lizards, moles, &c. have been found in their stomachs when dissected.

This bird is very quick in discovering, and expert in obtaining the combs of the wasp and wild bee ; and, probably, is protected from the attacks of these insects by the scale-like feathers with which the lore and head are covered ; the whole plumage, indeed, especially of the upper parts, is remarkably firm and close. The nest of this species has usually been found in the top of a high tree ; and, according to White of Selbourne, is a broad structure of sticks, and lined with leaves. The eggs are three or four, rather smaller than those of the Buzzard ; and, according to the descriptions of Pennant, and White of Selbourne, appear much to resemble the one we have figured. Ours being from a specimen some time preserved, has lost the red tinge which is commonly prevalent in the markings of this and of many other species of hawks, namely, the kestril, hobby, merlin, and sparrow-hawk, &c., all of which lose that colour after having been some time preserved, if exposed to the light : this may be seen in the eggs of some of the above mentioned species, in the collection at the British Museum, in which the deep red colour has faded to a pale brownish-green. If carefully kept from the light, we have reason to think the colour does not change materially, as we have in our collection some eggs of the smaller hawks, which have for six or seven years preserved their original tints, dark brick red upon a ground colour of pale greenish-blue.

The young birds, when excluded from the egg, are, according to Willoughby, covered with white down, intermixed with black. Adult as well as young specimens are among those recorded to have been met with in Britain: the one described by Bewick in his incomparable work, appears to have been an adult male, having the ash-coloured head usually observed in mature age. Selby describes one which appears to be a male approaching the plumage of the adult, as it has the head brown, inclining to ash-colour; and Montagu's specimen, which was shot in Berkshire, and since placed in the British Museum, is supposed by Mr. Selby to be a female, or young bird, having the under parts of the plumage brown.

The original of our plate was a young female shot in Suffolk, and kindly sent to us for the furtherance of our work; its entire measurements were as follows:—The wing, from the carpus to the tip, fifteen inches; length of the beak, from the forehead to the tip, one inch one line and a half in diameter.

The eye is placed rather further from the beak than in the genus Buteo, the front corner of it being one inch seven lines from the tip of the beak.

The toes are long, and cover a considerable space, measuring, from the hind to the middle claw, three inches eleven lines; the middle toe measures two inches one line, thence to the feathered part of the tarsus eleven lines; the hinder claw nine lines, middle and inner claws the same, the outer claw rather less. In the tarsus this species differs from the buzzards in having the naked part reticulated instead of scaled. In this specimen the chin and the feathers round the base of the beak, and the feathered orbits of the eye, were white; the crown of the head, sides of the face, and ear-coverts also white, each feather strongly tipped with dark brown; the back of the neck and tippet brown, with paler borders; the rest of the plumage dark and light brown, varying in different lights, and strongly glossed with a purple bloom. A few of the long tertial feathers had a dark angular patch near the end, and some showed indications of a dark bar above it; the upper tail-coverts white; the quill-feathers dusky; the third and fourth the longest in the wing. The tail, of which the feathers are broad, was very irregularly barred with dark and light brown, as represented in the plate, and tipped with dirty white; the middle feathers longer than the outer. On the under parts the feathers were all pale yellowish-brown; every feather when raised or displaced, showing its hidden parts towards the body to be white. The feathers on the lower part of the body were of a looser texture than above.

In the perfect adult plumage of the male, the whole head, including the forehead, nape, and corner of the mouth, are ash-grey; the throat pure white, the whole under parts the same, tinged on the lower breast and flanks with yellowish buff colour; the shafts of the feathers are dark, and near the tip of each feather is a well-defined crescent-shaped patch of bright rufous brown. The upper plumage, from the nape of the neck downwards, is deep brown tinged with ash-colour; the feathers tipped with white, and many of them crossed by dusky marks forming dark bars when the wing is closed. In this plumage the cere is said to be grey, the inside and corners of the mouth, iris, and legs orange. The tail is brown tipped with white, and crossed by three broad dusky bars, the one nearest the tips the broadest; between which broad bars are several narrower ones.

The tail feathers are white at the root, which is the case with most, if not all the feathers of the body; and this is in perfect harmony with the description given by Willoughby, of the young birds that he obtained from the nest, which he describes as covered with white down spotted with black;

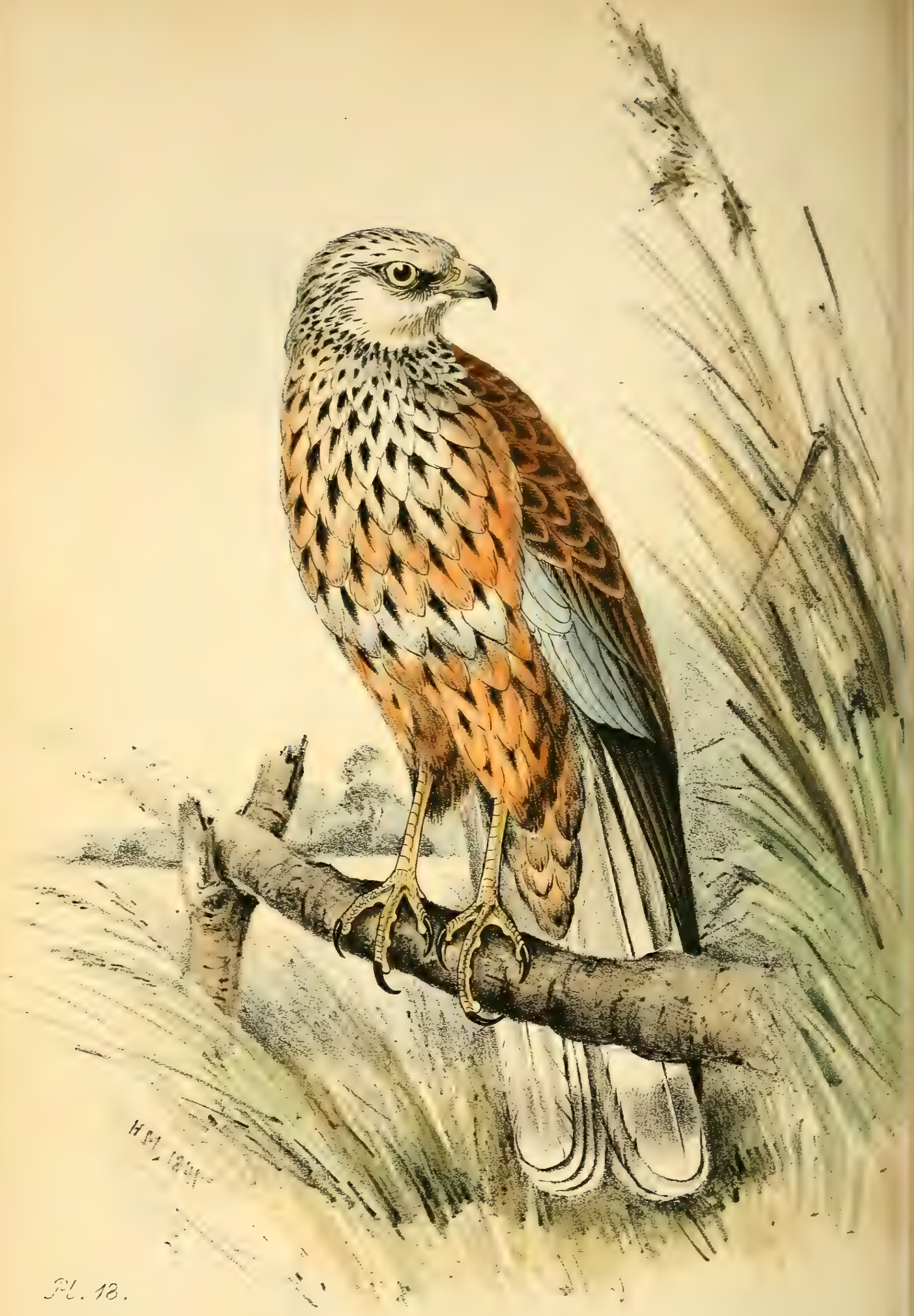
the spots were doubtless the tips of the young feathers making their appearance.

The bird described by Mr. Yarrell, which was shot at York, appears to be like the variety mentioned by Temminck in his third volume, which has the head and neck and all the under parts yellowish white, with dark shafts to the feathers.

The young female is above described, and figured in our plate.

The more adult females have the brown and white of the head and neck more distinct; but retain the dark line that borders the side of the throat; and in all the under parts the brown colour is confined to crescent-shaped dark spots upon a white ground, the upper parts barred in the same manner as in the adult male.

The egg, No. 17, belongs to this bird.



Pl. 18.

PLATE XVIII.

MARSH HARRIER.

CIRCUS RUFUS. (*Brisson.*)

THE Harriers are another division of the Falconidæ, which partaking both of the characters of the buzzards and of the owls, is very properly placed between these two tribes. In their want of courage, in their sluggishness, and manner of taking their food, these birds resemble the buzzards; and they approach the owls in the rough stiffened feathers encircling the neck, and in their habit of continuing the chase for food until late in the evening. They are, however, more active in their movements than the buzzards, and exert more skill and dexterity in obtaining their food, although in these particulars they fall far short of the true falcons. They cannot seize their food on the wing, but usually take it from the ground, or from the water. They chiefly frequent plains, in the vicinity of lakes or marshes, and in such situations only they are found to breed. In colour their eggs differ entirely from those of all the preceding birds of prey, at least such is the case with the species indigenous to this country: and in the places chosen for nidification, they differ from all the other divisions of the Falconidæ. Three species are recognised as inhabiting Britain, and are all indigenous.

The Marsh Harrier appears to be widely dispersed throughout the temperate regions of the globe, being found in all its quarters: but it is not everywhere equally distributed, being rarely, if ever, seen in hilly or mountainous countries, but abounding in such as are level, and especially where interspersed by marshes and level tracts, on the borders of rivers and lakes. In England these birds are indigenous, and are found at all seasons of the year; but this appears not to be the case much further to the north. As a summer visiter its migration extends as far as Norway and Sweden, and other countries in the same latitude; but it does not remain beyond the fiftieth degree of north latitude later than September or October.

The Marsh Harrier, as its name implies, frequents the swampy margins of rivers and lakes, districts covered by morasses, or interspersed with reeds and sedges. It seldom sits stationary in one spot, like the more sluggish buzzards, but remains on the wing, beating about the bushes or sedges in search of food. Its flight is wavering and uncertain, but slow and performed with little noise. It is seldom seen to alight upon a tree, nor does it roost at night in such a situation, but rests itself upon the ground, or on a hillock, or palings by day, and at night seeks the concealment and shelter afforded by osier beds or reeds by the water side. When flying, this bird may be known by its long and slender wings and wavering flight. Occasionally it rises high in the air, so that only an experienced eye can detect the moving speck.

The usual food of the Marsh Harrier is water birds and their young, or eggs, also small mammalia, reptiles, terrestrial or aquatic, and insects. Montagu says that on the coast of Carmarthenshire, where this bird is common, it feeds upon young rabbits. Temminck observes that in Holland it passes the winter on the downs, and lives upon the bodies of rabbits that have been killed by the stoats, and in the spring supports itself upon the eggs of the wading and web-footed tribes. The destruction that these birds commit among the young of water-fowl is so well known by the parent birds, that they pursue and attack them with vociferous cries, especially the gulls and pewits, and endeavour to drive them from the spot. Nor are the young of land birds more exempt from the attacks of these general depredators; young quails, partridges, larks, and many others fall a prey to them.

When the reeds begin to grow in the spring, the Marsh Harrier seeks a place for incubation. This is chosen usually on the reedy margin of a large pond, lake, or swamp, and the nest is either placed among the high reeds, or in the stump of an osier bush; it is composed of dry rushes, sticks, and leaves, and is a very shapeless structure. The female deposits from three to five eggs, which are white and entirely spotless. The specimen figured in our plate is, we believe, more pointed than is usual with this species, since they are described by some authors as resembling those of the common domestic hen, but more round in form. While the female is sitting, the male may frequently be seen flying overhead, and expressing his satisfaction by various and elegant evolutions, rising and descending in his flight, and sometimes soaring to a considerable height. The young birds are fed with insects, frogs, and other reptiles. Where the bean-goose breeds these birds are observed to frequent, and great numbers of the young geese fall a sacrifice to their rapacity.

In the Marsh Harrier the beak is of small dimensions, long and narrow, measuring fifteen lines from the forehead to the tip in diameter, and seventeen from the tip to the gape. The upper mandible is armed with a blunt and inconspicuous tooth; the cere long and partly covered with radiating bristles; the nostrils are egg-shaped. The tarsi are slender, and naked for three inches above the foot. The toes are long, the middle one measures two inches eight lines, of which the claw occupies ten and a half lines: the claws, which are all nearly of equal length, are slender, and but little arched; the middle one is dilated on the inner edge, and sharp; the outer and middle toes united by a membrane. The body is long and slender. The wings are long, measuring from carpus to tip seventeen inches two lines; the first and second quill-feathers are short, the third the longest in the wing. The tail feathers measure ten inches. The lower part of the face is surrounded by a ruff of stiff feathers, and capable of erection at the will of the the bird: the rest of the plumage is soft and rather loose: the wings, when closed, reach nearly to the end of the tail. These measurements were taken from a specimen in the Zoological Museum, the same which forms the subject of the plate. According to Montagu, the entire length of one measured by him was twenty-three inches, and weighed twenty-eight and a half ounces: the male is rather less in weight and dimensions.

The bill is dusky, the cere, iris, and legs yellow in the adult birds; in younger subjects the cere and legs are paler yellow, inclining to greenish, the iris dark brown.

This bird, in consequence of the great difference in plumage between the young and old, and the time that elapses before it arrives at maturity, was formerly multiplied into several different species. Its various changes, which chiefly depend upon age, are however now well understood, and to the elucidation of them we are greatly indebted to Montagu and Selby, Temminck, and other continental authors.

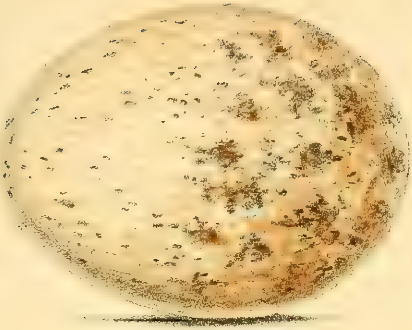
The young birds of the first year have the head and throat yellowish white, tinged with rust colour, the rest of the plumage, including the yet unmarked disk, chocolate brown, reflecting tints of violet upon the back: the under surface of the wings and tail are pearly ash grey. In this state of plumage is the bird so exquisitely figured by Bewick, under the title of Moor Buzzard.

The one mentioned by Latham is supposed to have been still younger, as they are darker, soon after they leave the nest, than at any other period. In these early states of plumage it forms the Falco aeruginosus of Linneus, and arundinaceous of Bechstein.

When more advanced in age, about their second summer, these birds begin to acquire some of the variegated colours of maturity: the dark ground colour of the plumage becomes more rufous on the thighs and flanks; the tail paler; and on the ruff, shoulders, and front of the neck, some yellowish white spots appear, and a gloss of ashy grey becomes visible upon some of the larger coverts of the wings.

In the third and fourth year these approaches to maturity become more and more apparent, and, when the full plumage is attained, at the age of four years, the bird presents the tints and distribution of colours represented in the plate. At this time, the back is rufous brown, the tail pale grey, without any bars, and the under surface of this and of the quill-feathers plain silvery-white.

No. 18 is the egg of the Marsh Harrier.



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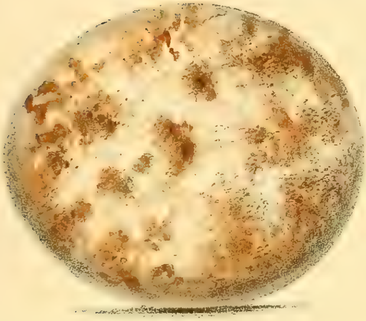

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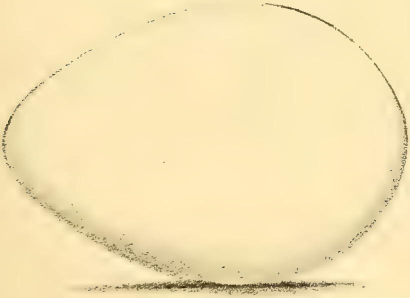

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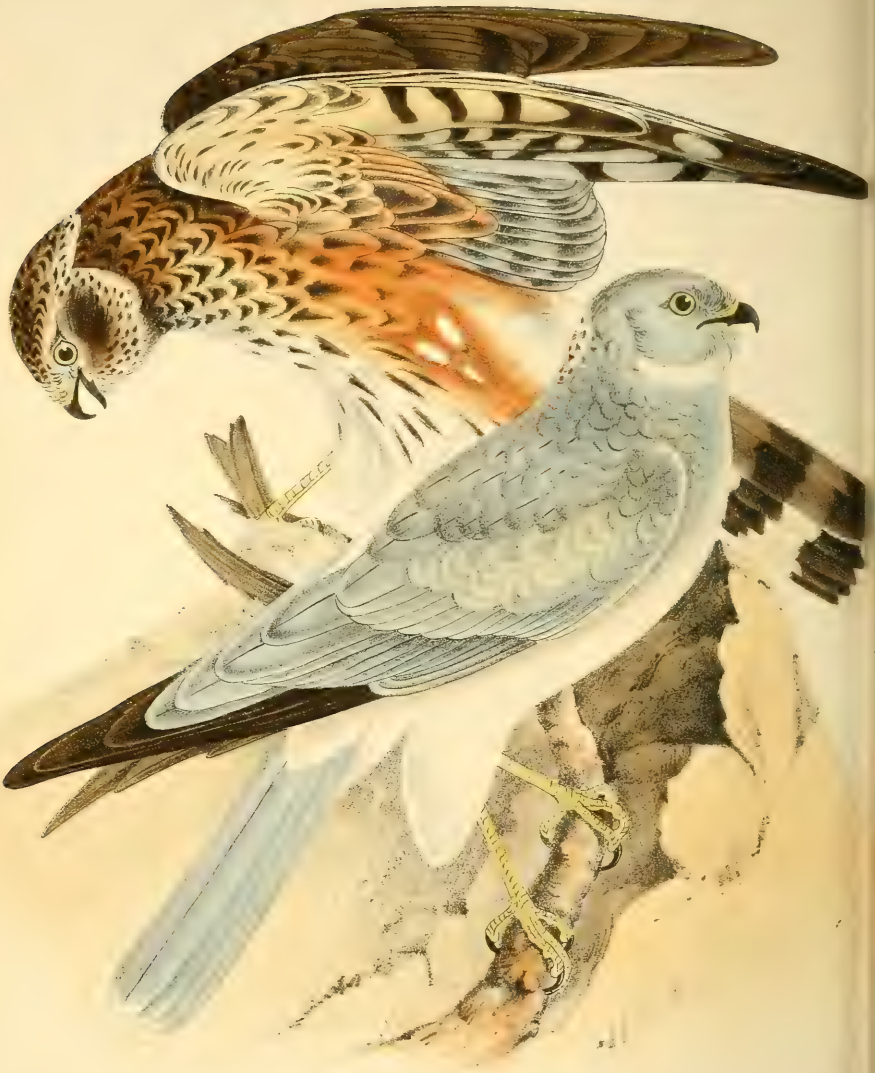


Pl, 19.

PLATE XIX.

HEN HARRIER.

CIRCUS CYANEUS. (*Flem.*)

To Montagu we are indebted for the elucidation of many difficult and obscure points in this branch of natural history; and as his field of study was nature, the only certain guide, and the deductions he so clearly details are open to the investigation of every one interested in the subject, perfect confidence may be placed in the result of his observations.

Before the publication of his remarks in the Linnæan Transactions, the history of our English Harriers was involved in inextricable confusion, and the existence of a third distinct species, now well known as Montagu's Harrier, does not appear to have been even suspected. On the other hand, the Hen Harrier had been by various authors multiplied into several species, inaccurately founded upon the different appearances presented by the male, female, and young. All these difficulties were satisfactorily reconciled by the persevering investigations of this distinguished naturalist, from whose observations we shall freely quote, offering no apology to our readers for so doing, since the information contained in them is the best of its kind. "I undertook," he says, "the care of three young Hen Harriers found in a nest in a furze bush, and only covered with white down. At this time the two largest had thrown out many feathers, sufficient to discover the plumage of the Ringtail approaching; the other, by its appearance, must have been hatched much later. In about a month, it was evident from the size, that there was but one male, so that all my hopes rested on this single life. As they became full feathered, there was at first no distinction in plumage, but the eyes of the supposed male were always lighter than those of the others, whose irides were so dark as not to be distinguished at a small distance from the pupil. In the dress of the Ringtail, the whole continued through the winter, when the one which had been weakly from the first, died. This circumstance induced me to force a premature change in some of the quill and tail-feathers of the others, fearing some accident might frustrate my earnest desire of bringing the matter to a decisive proof; and about the middle of June, I was highly gratified by discovering an appearance of the new feathers, in the place of those which had been plucked out, that clearly evinced the smaller bird to be a Hen Harrier, and the larger a Ringtail. Thus I had compelled nature to disclose her secrets before the appointed time; for in every other respect their plumage was yet similar, excepting about the sides of the face, which were paler in colour in the former, in which also the irides were of a dull yellow, somewhat mottled; whereas in the latter they still continued dark. The male had, about the 20th of July, thrown out many of the new feathers naturally, especially the greater coverts of the wings, and a few grey feathers on different parts of the body. On the 20th of August, the greater part of the quill and tail-feathers were grown to their full length, and a gradual increase of grey feathers appeared on most other parts. The eyes also became more orange; but it was not till the middle of September that it had attained that state which made it desirable to be retained as an existing fact of the change; it was then killed, and is now in my museum.

“ In this state the plumage of the Ringtail, or female, still remains about the neck, the smaller coverts of the wings, the thighs, and part of the belly, intermixed with the male plumage; the top of the head and wreath have also a mixture of the feathers of both sexes; the quills, scapulars, and tail are completely masculine; in the last of these are a few small broken bars of cinereous brown, on a white ground, in the three outer feathers, the exterior margins are cinereous grey; the six middle feathers are almost wholly grey, and the markings are very obscure beneath.

"From the account here given of the Hen Harrier, it is quite clear that the change of plumage is effected in the autumn of the year after it leaves the nest, and not in the same year; and as it is between three and four months in the act of moulting, it is certainly very extraordinary that so few instances have occurred of its being killed in that state which might have been decisive. That such has been taken, is evident by the description of Falco Hudsonius of authors, which is doubtless this bird in change of plumage.

"The nest of this bird was composed of sticks rudely put together, was nearly flat, and placed on some fallen branches of furze, that supported it just above the ground."

This Harrier is less attached to marshy places than the two other species; it frequents in preference cultivated land or open heaths, and, as country of that description abounds in England, it is consequently a well known species in most parts; it is found also in Scotland and Ireland. In other parts of Europe it is met with more or less frequently, according to the different nature of the several countries. In Holland it is far less abundant than the Marsh Harrier and Montagu's Harrier. In Switzerland it is scarce, but in many other parts of the Continent it is well known, and extends to the eastern confines of Asia. It is found in many parts of Africa, and is generally believed to inhabit America, both in the northern and southern hemisphere; but the specimens we have seen from those continents have not perfectly satisfied us of their identity with the British species, as we have observed the flanks and thighs of such American specimens to have a narrow brown streak down the shafts of the feathers, which the Hen Harriers of our own country have not in their adult male plumage.

The Hen Harrier remains in Britain all the year, but in countries a few degrees further north it is migratory; it is said to leave the northern parts of Germany in autumn, and is not seen again until the spring is far advanced.

The habits and manners of the Hen Harrier are so very similar to those of the Marsh Harrier, previously mentioned, that a very minute description is unnecessary. Its food is the same, and taken in the same manner from the ground.

The structure and component parts of the nest are also very similar, and the egg, although smaller in size, is nearly the same in colour, namely, white, a little tinged with green. The locality chosen for the nest is not altogether the same, but differs in proportion to the less aquatic inclination of the bird, and has usually been found among long grass, upon a moor or heath, or on a fallen furze-bush; and we have this summer seen a nest of young birds of this species taken from a similar place on a boggy heath in Surrey.

In flight this species much resembles the Owls, especially the Short-eared (Otus brachyotus). The general plumage of the adult male is pale ash-grey on the upper parts, including the head, back, scapulars, coverts of the wings, tail, and some of the larger quill-feathers; also the upper parts of the breast. The first five quill-feathers are dusky, and grey or white towards the root. The under parts of the plumage are pure unspotted white, including the belly, thighs, under tail-coverts, and under surface of the wings; the rump and upper coverts of the tail are also white, and a whitish ruff nearly encircles the neck; on the nape is a patch of black and white chequered feathers. The beak is black; the cere pale yellow; the iris of the eyes, and the legs bright yellow.

The female of the Hen Harrier, commonly called the Ringtail, is altogether different in colour. She has the crown of the head, neck, back, scapulars, and lesser wing-coverts dusky, bordered with rufous brown; the primary and secondary quill-feathers, tertials, and larger wing-coverts are dusky, and slightly barred above, but beneath the bars are very conspicuous, being on a white, or greyish-white ground. The middle feathers of the tail are dusky ash, with three or four broad dark bars; the side feathers of the tail are white, tinged with rufous, and barred with dusky or rufous brown; the upper coverts of the tail white. Breast, sides, under parts, and thighs, are white, broadly streaked down the shafts of the feathers with rufous brown.

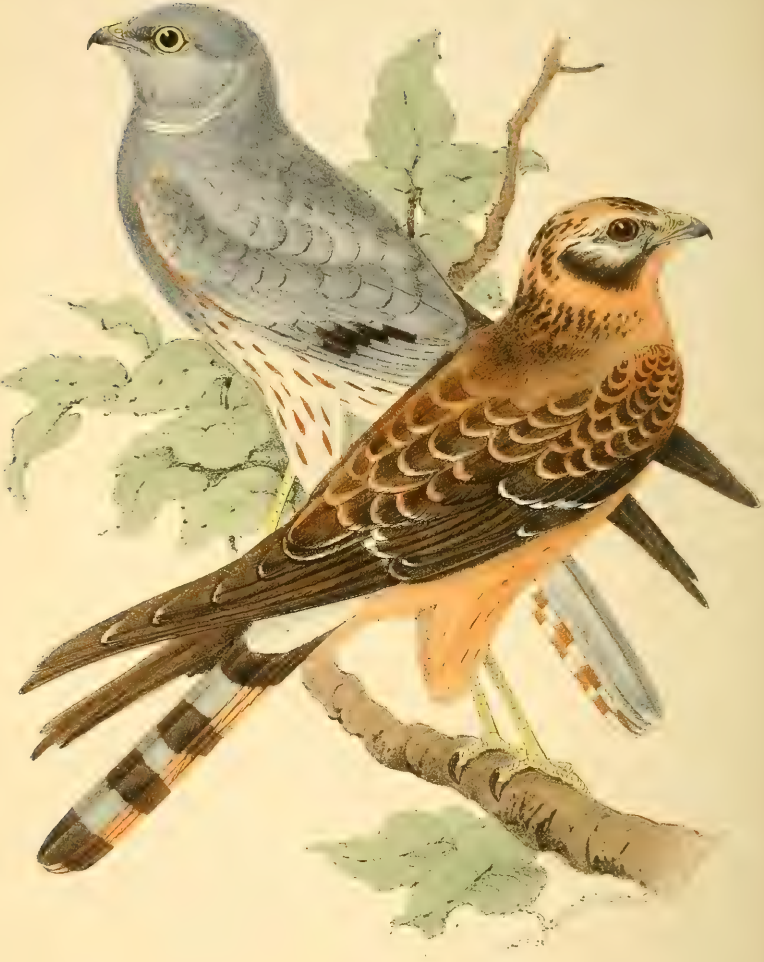
The ruff round the neck is very conspicuous, and is composed of feathers mottled with dusky and white: the under coverts of the wings are reddish white, with dark centres to the feathers. Above and below the eye is a white line, and the chin is also white. Iris, cere, and legs, as in the male. The young nearly resemble the female. The chief difference is in the ground colour of the under parts, which is in the young reddish-yellow instead of white.

The following dimensions were taken from a specimen of an adult male bird. The beak, from the forehead to the tip, eleven lines and a half; from the gape to the tip, one inch one line and a half. Tarsus two inches three lines; quill-feathers of the tail nine inches; the wing, from the carpus to the tip, thirteen inches three lines; the inner and hinder claws eight lines. The tail extends two inches beyond the tips of the closed wings. The male measures in entire length about eighteen inches and a half, and weighs thirteen ounces.

The female, or Ringtail, exceeds the male considerably in weight and dimensions, being twenty inches in entire length, and eighteen ounces in weight. Her beak measures one inch two lines, and from the gape one inch four lines; the tarsus three inches; the tail-feathers nine inches six lines; the wing, from carpus to tip, fifteen inches; and the inner and hinder claws measure ten lines.

In this species the third and fourth quill-feathers are the longest, and are nearly equal in length, and the first is shorter than the sixth.

The egg No. 19 belongs to the Hen Harrier.



Pl. 26.

PLATE XX.

MONTAGU'S HARRIER.

CIRCUS MONTAGUI. (*Yarrell.*)

IN size, general appearance, and habits this species so much resembles the Hen Harrier, the subject of the preceding plate, that the circumstance of the one having so long remained undistinguished from the other is hardly a subject of surprise; and credit is the more due to the acute observation of our before-mentioned countryman, Montagu, for discriminating between them. The differences are, however, when pointed out, sufficiently obvious, and such as will enable an observer acquainted with the subject to decide readily to which species any specimen he meets with should be referred. The differences consist in relative proportions and in weight, as much as in the colours of the plumage; and it may be observed, on referring to the dimensions specified of the males of the two species, that, although Montagu's Harrier is smaller than the Hen Harrier in all other measurements, it equals that species in the length of the tarsus, and exceeds it in the expanse of the wing. The first notice of this bird was published by Montagu in the Linnæan Transactions, and was the description of one killed in the summer of 1803. In May, 1808, the same author says, "We observed one of these birds in South Devon, skimming over a patch of furze very near, and noticed that it repeatedly dropped into the same spot, after having pitched on the bare ground at some distance, but could not observe whether it was preparing a nest or not. At the same time, we noticed a large brown Hawk floating over another piece of furze, at a little distance. This had much the appearance of a Ringtail, but appeared longer in the wings, which gave a suspicion that these were actually the two sexes of the ash-coloured Falcon, and which seems to be confirmed by subsequent events."

Shortly afterwards, he says, "in the month of July, in the same year, a nest was discovered on the ground amongst furze, containing three young birds and an addled egg, which last was white. Two of the young Hawks continued alive till the summer of the following year, and were evidently, from their disproportionate size, of different sexes. About the beginning of August they began to moult, plainly discovering that they were not Hen Harriers, as before supposed, but actually the birds in question. Unfortunately, at this most interesting conjuncture, the female made her escape, before she had nearly completed her mature plumage, and the only part we could obtain of her was an outer feather of the tail that had been broken off, and was evidently of recent growth, by not being completely expanded at the base. This feather had five bars of ferruginous, with alternate rufous-white on both webs; towards the end the dark bars inclined to dusky. In the latter end of November, the male was, by some accident, killed in the middle of his moulting, when assuming the feathers of maturity, and was in a mutilated state sent to us for examination, the description of which is as follows. The head, neck, part of the scapulars, and most of the lesser coverts of the wings, still possess the nestling brown feathers, which are similar to those of the immatured male Hen Harrier, or the adult Ringtail; but the ferruginous-brown is brighter, and more inclining to dull orange: all the smaller feathers upon the under part of the wings are bright ferruginous, differing most essentially in colour from that part in the Hen Harrier of either sex, or in any state of change, and which, in the adult male of that species, is invariably white. The under scapulars on one side are similar to those of the adult, elegantly barred ferruginous and white; but on the other side these feathers have not been changed, and are plain ferruginous; the under parts of the body and thighs are nearly matured, being white, and possessing the bright ferruginous streaks down the shafts of the feathers: the quills and the greater coverts are mostly matured, but a few of the nestling feathers remain, which strongly and most interestingly mark the distinction, particularly two or three of the secondaries, which are destitute of the dusky bars, and are of a uniform chocolate-brown, darker than those on the young Hen Harrier: the tail is much mutilated, but the remains of the old feathers are in appearance barred much like those of the adult; the outer feathers with bright ferruginous and white, the others with ferruginous bars at the base; but the third feather is new, on which there are five dark, and five pale bars, alternately," etc. etc.

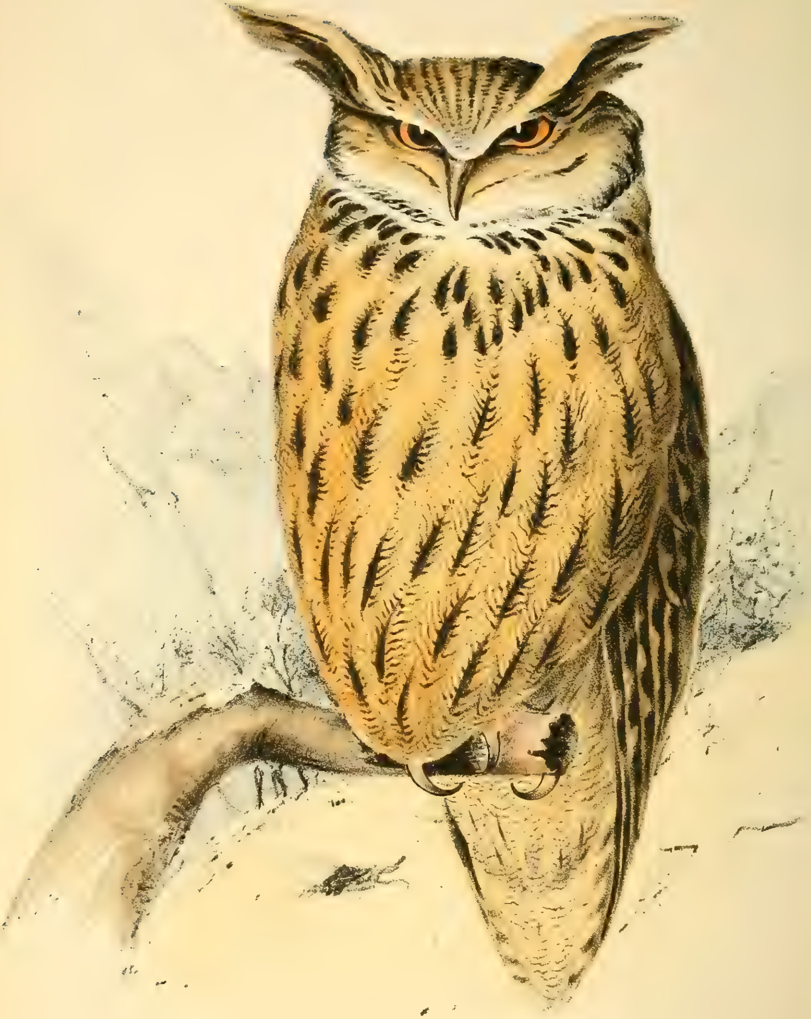
This Harrier appears to be far less common in England than the preceding: it has been chiefly noticed in Devonshire and other southern counties, but has also been seen in the north of England. Temminck says it is chiefly found on the Continent in the eastern and southern parts; in Hungary, Poland, Silesia, and Austria, and is common in Dalmatia and the Illyrian provinces: it is also found occasionally in Italy and Switzerland. It is very common in Holland in the marshy parts, and in spring frequents the downs on the sea-coast.

The plumage of the adult male, represented in the plate, is ash-grey on all the upper parts, including the entire head and upper half of the breast, the back, scapulars, and wing-coverts, and the middle feathers of the tail: the secondaries are crossed by three dusky bars, one of which only is visible above, which bars constitute the principal difference in appearance between this species and the Hen Harrier. The primary quill-feathers are black, the outer feathers of the tail are barred ferruginous and white, the under surface of the wings the same. The lower part of the breast, flanks, thighs, and under-coverts of the tail are white, marked down the shafts of the feathers with a stripe of bright ferruginous.

In this species the third quill-feather is the longest in the wing, and the ruff round the head is not so conspicuous as in the Hen Harrier.

The dark bird represented in the plate is a young male, drawn from a specimen in the Zoological Museum, and is in the plumage of the first year. The measurements taken from this specimen are as follows :—the beak from the forehead ten lines, from the gape eleven and a half lines ; the tarsus two inches, three lines ; tail-feathers eight inches, two lines ; the wing, from the carpus to the tip of the quill-feathers, thirteen inches, six lines.

Egg No. 20 belongs to this bird.



Pl, 21.

PLATE XXI.

EAGLE OWL.

Bubo Maximus. *(Sibbald.)*

The greater number of species of the Owl genus are of nocturnal habits, lying concealed by day, and seeking their prey during the morning and evening twilight, or by the light of the moon. Among these may be classed the short-tailed species, the pupils of whose eyes are so constructed as to admit a great number of rays of light: these are unable to sustain the full glare of day, but whether retired in thick foliage, or hidden in the gloom of an old ruin, they are sufficiently able to see what is passing around them to escape on the approach of danger. Some species, whose habits are more diurnal, are able to avail themselves of the full sense of sight, even in open day: these pursue their prey on the wing, or lay in wait for it in the shelter of a wood or forest. Such are chiefly those species whose heads are unfurnished with tufts, and whose tail feathers, more or less graduated, extend beyond the tips of the wings.

All the birds comprised in this genus have their feathers soft to the touch, of a downy or silky character. They seize their prey with their claws, and, except when greatly pressed by hunger, refuse all but living food. They moult but once in the year, and the plumage of the young birds differs in most species but little from that of the adult. The beak of the Owl is strongly hooked from the base, with a very sharp and lengthened tip, but without any tooth or indentation; both mandibles are very moveable: the base and cere are covered with stiff bristling feathers: the nostrils are round and placed on the edge of the cere. The eyes are very large, and surrounded by a disk of stiffened feathers, which are mostly directed forwards, and calculated eminently to protect the large and tender visual orbs from the influence of wind and light: when the eyes are closed, these radiating feathers are often drawn together so as to conceal the eyelids. The ears are very large, and defended by feathers of a peculiar construction. The legs are, in most species, closely feathered, the toes rather short, and the outer one reversible: the claws are long, thin, but slightly arched and very sharp. The head, in most of the species, appears very large, but this appearance of size is deceptive, and caused by the position of the feathers, which chiefly stand up at right angles, the head itself when grasped in the hand appearing to have shrunk away at the touch. A border of rounded, shell-like feathers surrounds the face; this border is sometimes expanded into a circle, sometimes contracted into a triangular form, with one of its corners pointing downwards. The extreme susceptibility of the eyes may be observed in the contraction and dilatation of the pupil with every inspiration of the breath. The wings are of considerable length and breadth, the larger quills very broad, and usually rounded at the tips, with the shafts bent. The tail feathers in most species have the shafts bent backwards, which occasions the tail to hang perpendicularly down when the bird is at rest. The feathers on all the other parts are mostly large, soft, and elastic, and almost invariably projecting loosely from the body.

The greater number of the species of this genus are, as before observed, nocturnal or crepuscular in their habits, going out to feed when other birds of prey retire to rest.

Their broad wings and loose feathering enable them to fly with exceeding lightness and buoyancy, and the serrated edge, which is observable on the outer web of several of the larger quill-feathers, greatly contributes to their noiseless flight, and enables them to steal unheard upon their prey. During the day they are usually asleep, or they sit quietly with half-closed eyes, watching with great attention all that takes place around them: motionless, and with feathers smoothed, they lean sideling against a tree or wall, so that the unaccustomed eye may easily overlook them. They are fond of lonely gloomy places, dark recesses in the forest, or hollow trees in the woods, fissures in rocks, or recesses in old ruins. In such places they sit concealed during the day, but as soon as the gloom of the evening sets in they begin to be on the alert, and steal forth in search of food. At this time they take birds from their nest, or snatch them from their roosting place: animals also that come forth under cover of night in fancied security become their prey; of the murine tribe especially are destroyed innumerable quantities.

The larger species of Owls take hares, rabbits, and other animals, and are very destructive among grouse, and birds of similar size. The larger animals and birds are torn in pieces, the smaller are usually swallowed whole, and the bones, hair, or feathers, ejected in the form of long pellets. In this process they open the beak wide, lower the head, writhe and violently shake the body until the pellet is disgorged.

The breeding-places of Owls are mostly chosen in holes in trees or old buildings, in rocks or caves: their nests are slightly and rudely constructed, and the eggs of all the species are white and rounded in form. Owls exhibit great attachment to their young, and have been known to supply with food for a considerable time such as have been caught and caged.

The Eagle Owl figured in the plate was drawn from a fine male bird in the Zoological Gardens. While sketching the male, our attention was attracted to his companion, who sat on the ground at the bottom of the cage, shuffling with her feet and wings in the sand. After some time, on shifting her position, we perceived that she had laid an egg. Being anxious to obtain the dimensions and particulars of an egg so undoubtedly genuine, we informed the keepers of the garden of the circumstance, and one of them entered the partition to take it away. To this proceeding the bird made every resistance in her power, flying furiously at the man, with open beak and claws extended, hissing and snapping with her bill, and spreading her wings and tail until every feather was set up like the quills of a porcupine. The egg thus opportunely obtained, measured two inches seven lines in length, and one inch eleven lines in width: it was perfectly white, of a rough chalky appearance, and without any polish.

The Eagle Owl is one of the largest of its tribe, nearly equalling the Eagle in apparent size, and exhibits in its appearance, when roused into action, more of the dignity of the Eagle than the grotesqueness usually characteristic of the Owl. To this dignity of appearance, we conclude, may be attributed the name of Grand Duc, bestowed upon it by Buffon, Temminck and other authors. What Grand Duke has had the honour of being its prototype we are not informed. This species is chiefly an inhabitant of mountainous countries: it is common in Norway, Lapland, and Russia, is found in Germany and the mountains of Switzerland, but is rare in France, and more so in England. According to Temminck it inhabits Italy, and is even met with in Rome: it is found also in the middle and north of Asia, in Africa, and in North and South America. It is never seen in countries that are open and level; but the more rocky and unfrequented the country, the more it is preferred, especially where old ruins exist, which are its chosen places of resort. On this account the south of Germany is much visited by the Eagle Owl, and in the Hartz Mountains it is everywhere well known.

In these wild regions this Owl was formerly the subject of many a curious and popular superstition, and even at the present time plays no inconsiderable part in the history of the Wild Huntsman and other evil genii. Its singular and savage appearance, associated with its melancholy voice, render it no inappropriate auxiliary in the supernatural tales in which Germany so much delights. The modulation of the higher and lower notes of several of these birds, heard among ivy-covered ruins, or in dark forests, where echoes repeat the hollow unearthly tone, may well be likened to the barking of dogs, the neighing of horses, or the unhallowed laughter of the phantom-huntsman,—stories which even now thrill through the nerves, and chill with superstitious horror the uneducated clowns, the chief inhabitants of the gloomy and lonely mountain-forests of the Hartz.

In former times, when fire-arms were not so much in use, these birds frequented the towers of isolated castles, although inhabited. About the latter end of March, these birds begin their arrangements for breeding, although they only produce one brood in the year. Their large unshapely nest is constructed of many dried sticks and branches, and lined with dead leaves or straws, and is either placed among the rocks, in old buildings, or stumps of trees, and occasionally in a lofty tree.

Sometimes the eggs are deposited in a hole, without any attempt at a nest. The female deposits two or three, rarely four eggs, and sits three weeks ; seldom more than two young ones are hatched. These much resemble a ball of wool, being covered with dirty white loose down, sprinkled with brown; and it is not before the sixth week that the quills show themselves through the down; consequently the young birds remain a long time in the nest: they utter a continual hissing and piping noise, by which they frequently betray their retreat. The parent birds supply them with food in great plenty, and never wander far from their place of concealment. The old birds usually return every spring to the same place for incubation, and even if continually robbed of their eggs or young, they will not desert a favourite spot.

The Eagle Owl lives generally alone, except during the season of pairing, when he remains with his family. His flight is performed with ease and lightness, is slow, wavering, and generally near the ground. In habits he is nocturnal, but when disturbed from his place of retreat, even in bright sunshine, he is able to see sufficiently to avoid flying against branches or other objects which surround him. In confinement he is far more alert by day than many others of his tribe, and frequently feeds during daylight. His usual cry is *poo-hoo*, accompanied, when molested, with hissing and snapping of the beak. During the breeding season the female utters a screeching noise, together with the accustomed hoot. When at rest the appearance of this bird is clumsy and shapeless, but when its attention is attracted on the approach of any one, it opens to the full width its large and brilliant eyes, throws its head from side to side, snaps its bill, and shaking its plumage and expanding its formidable claws until its passions are fully roused, finally darts with fury upon the object of its anger. Its strength being equal to its courage, it does not easily relinquish what it has once seized.

The Eagle Owl feeds upon all sorts of animals and reptiles: among the larger animals it sometimes takes a

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young deer, or a lamb; also hares and rabbits, rats, moles, mice, etc. Among ground birds the largest are not too powerful for it; cocks of the wood, and other grouse, pheasants, partridges, crows, rooks, etc. become its prey; snakes, lizards, and frogs, and even insects are not overlooked. The entire length of the Eagle Owl is twenty-four or twenty-five inches; the expanse from wing to wing sixty-eight to seventy inches.

The tail is square, and the feathers measure ten inches in length; the wings, when closed, cover about three-fourths of its length. The beak is strong, bent into nearly a semicircle, measures two inches from the forehead to the tip in diameter, and two inches and three-quarters in the arc; the colour is dusky-horn.

In the fine large eyes may plainly be seen the contraction and expansion of the pupil with every effect of light: the orifice or pupil is not so large in proportion as in some other Owls; the iris is a fine rich orange. The tarsi are three inches long, the middle toe two inches and a half, the claw one inch and a half; the hinder toe one inch, and its claw two inches and a half. The tarsi and upper parts of the toes are covered with close feathering, the soles of the feet are rough and warty, and of a sooty colour. The feathering consists of a mixture of yellow, brown, rufous, dusky and black, disposed in markings almost impossible to describe. The strong bristling feathers round the eyes are pale ash, intermixed with brown, yellow, and black; the tufts over the eyes are composed of black feathers, edged and marked with yellowish-brown, the longest measure three and a half inches. The entire upper plumage is dark brown and rufous yellow: the under plumage is in the ground colour ochre and rufous yellow, the feathers crossed with dark waving lines, and marked down the centre of each with a stripe of dusky, broadest upon the upper part of the breast; the throat is white. The female is generally darker in colour than the male, and larger in size. The young birds, when they have acquired their full feathering, much resemble the adult.

The egg of this species is marked 21 in the plate.

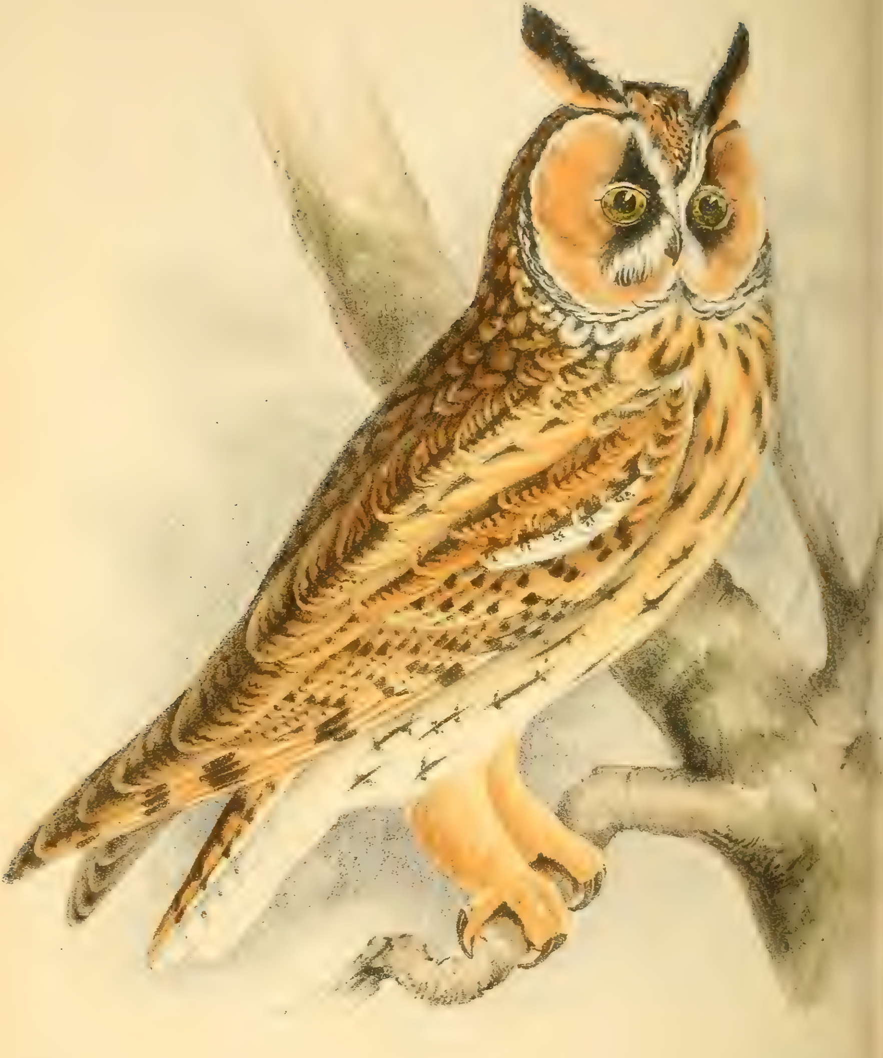


PLATE XXII.

LONG-EARED OWL.

OTUS VULGARIS. (*Flem.*)

THIS very handsome species is indigenous in England, and remains here all the year, but is far less common than several of the British Owls. Its places of residence, and habits of concealing itself, may contribute to render it less generally known. In confinement it is readily tamed, and will become very sociable, and makes itself extremely amusing by the ridiculous and indescribable attitudes it assumes, which are rendered picturesque by its long and beautiful ears. It frequently sits apparently asleep, with its eyes closed, except the narrowest slit, through which it perceives and notices all that surrounds it. When undisturbed, these birds remain very quiet by day, and sit motionless on a branch as long as daylight lasts ; if carefully approached, they will not take wing, but endeavour to effect concealment by shrinking closer into their places of retreat. Thus hidden in dark woods, in summer, among the thick foliage, forest-trees, or close copse-wood, and in winter in ivy, fir-trees, or evergreen shrubs, this species is so effectually sheltered from inexperienced observers as to be seldom seen. Its mottled and downy plumage harmonizing with the rugged bark of the stem against which it rests, or assimilating with the dead, or withering leaves of autumn, also contributes to ensure its safety.

In open unsheltered country this species is seldom, if ever, met with. Dark woods, and thick plantations overgrown with underwood, are, however, the only shelter sought by this Owl, which is never known to inhabit ruins, rocks, or hollow trees, like some others of its tribe. It is found in most parts of the world, in countries well covered with wood; but, although it remains in England during the winter, it is considered to be migratory on the Continent of Europe.

Nest-building is not much studied by any of the members of this family; and as the Long-eared Owl never avails itself of the remains of human architecture in the shape of old ruins, like most other species, it is compelled to seek the accommodation afforded by the deserted habitation of some other bird, and frequently chooses that of the pigeon, if sufficiently sheltered, of the magpie, or the squirrel. The eggs deposited are four or five in number, white and round.

The young birds are at first covered with white down. This soon becomes yellowish, intermixed with brown; by degrees the dusky face appears, and the tufts begin to rise, in the form of two elevations, streaked with brown.

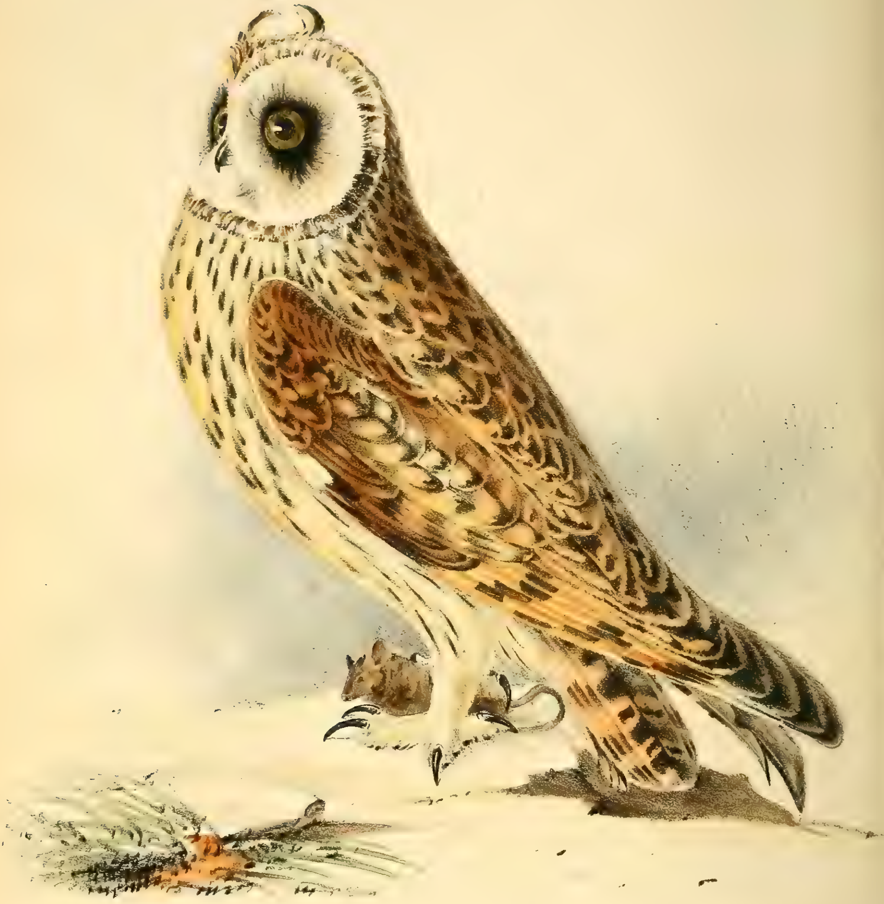
The call-note of this species, which is occasionally heard in the evening, or during the night in the spring, is described to be a long-drawn note, resembling the word *hook*, the latter part of the word being pronounced half a note higher than the beginning; sometimes a hollow booming noise is uttered by them.

The note of the young birds is similar to that of the parents, but uttered in a higher key.

In entire length this bird measures fourteen or fifteen inches; in expanse from wing to wing, three feet two inches; the length of the tail is five inches and a half, and the closed wings reach beyond the tip.

The ear in this species is particularly large; the lids, or flaps, when expanded, are nearly as long as the head. The tufts, or horns, upon the head are also very large and conspicuous; they consist of several feathers, capable of erection; the frontal ones are the longest, and measure from one and a half to two inches; the hinder feathers are the shortest. The beak is much arched, and measures one inch and a quarter in the arc; it is black, as are also the cere and eyelids. The iris is bright orange, or fire-colour. The tarsus measures one inch and three-quarters in length, the middle toe one inch, and the claw five eighths of an inch; the hinder toe half an inch, the claw the same. The legs and feet are covered with close, short, soft feathers, except the soles, which are bare, and of a dirty yellow colour. The claws are thin and sharp, of the appearance of horn. The colours of the upper plumage are dusky, ash-grey, rufous, and white, beautifully blended and softened together. The quill-feathers are salmon-colour, passing into reddish grey at the tips, and crossed by narrow dusky bars. The upper part of the breast is rufous brown, passing into white on the flanks and under tail-coverts. The bristling feathers between the eyes and beak are black at the root and white at the tip; the rest of the face ferruginous. The feathers of the tufts are black, bordered with white and rufous brown.

The food of this species is rats, mice, moles, and beetles, occasionally birds; but, as this Owl is of nocturnal habits, its food must necessarily consist chiefly of creatures that are most readily met with at night. As soon as twilight sets in, they come out of their hiding-places, and fly about in every direction in search of food; through woods and fields, sometimes around gardens and orchards, continues this rambling of the night, which ceases only with the approach of day. In winter, in severe weather, when their usual food is scarce, individuals of this species have been seen boldly pursuing the chase for food in open day.



Pl, 23.

PLATE XXIII.

HAWK OWL.

OTUS BRACHYOTUS (*Fleming.*)

THIS species, called by some authors Hawk Owl, from its small head, lively appearance, and habit of flying frequently by day, is perhaps better known under the designation of Short-eared Owl. It resembles much in general aspect the Long-eared Owl of the preceding plate, but differs very essentially from that species in habits, locality, &c.

This bird is found here at all seasons, but its numbers are believed to be considerably increased in autumn and winter by visiters that retire to this country from more northern latitudes. Unlike the last described species, this bird does not seek the shelter of woods or copses, but prefers open country, fields, and moors, in which it searches for food often by day in gloomy weather. Its place of nidification is chosen on the ground, among heath, long grass, or rushes: in such places the young birds have been found seated on the ground, having left the nest before they were able to fly. They also breed upon downs near the sea-coast; the young have been frequently seen on our eastern coast in such situations, and they are said to breed in great numbers on the coast of Holland.

It is remarked by M. Boié that this species follows the migrations of the Lemmings, wherever these destructive animals establish themselves. In the countries of the North the

Hawk Owl is found in considerable numbers: in all these countries it is a bird of passage.

The Hawk Owl is nearly as widely dispersed as the long-eared species. In Europe it is everywhere known, and also in North and South America, and in Asia. In the north of Europe these birds are common in low, marshy places, and consequently abound in the low parts of the north of Germany and in Holland. In these countries damp fields, meadows, and swamps are much frequented by them. During the day they sit on the ground, among willow bushes, thistles, nettles, or other tall plants, or among reeds and high grass. In autumn they have been found in the furrows of ploughed lands, or concealed in potato-fields, or among cabbages. They seldom perch in a tree, or even bush. Their call is an agreeable sounding note, resembling *kiou, kiou*, seldom uttered, but soft and pleasing. The food of this species is chiefly mice and insects, small birds, &c.

The tufts upon the head are not very conspicuous, and are chiefly erected, according to Montagu, when the bird is in a quiescent state, or asleep; on being disturbed or roused, it raises the other feathers of the head, so as nearly to conceal the aurated tufts. These tufts consist of only three or four feathers, the longest of which measures less than an inch: they are placed much nearer together than those of other horned owls. The entire length of the Hawk Owl is fourteen or fifteen inches, and in expanse from wing to wing it measures forty-four to forty-six inches; the tail-feathers are six inches long, and the wings, when closed, reach considerably beyond their tips. In weight it is about eleven ounces. The beak and cere are black, and the former measures an inch and a quarter in the arc. The tarsus measures two inches.

The feathers of the upper plumage are chiefly dusky, bordered with light ferruginous; the quill-feathers are yellowish salmon colour, and becoming greyish near the tips; marked with dark narrow bars: the second feather of the wing is the longest, and several of them are strongly serrated on the outer edge. The tail-feathers are marked with dusky bars upon a ground of pale ochre; the legs are feathered down to the claws with downy feathers of a light buff colour. The eyes, which are yellow, are encircled with radiating feathers of a deep black passing into white: the wreath which borders the face is composed of feathers striped with orange and black; near the orifice of the ears the black predominates: the feathers of the tufts are dusky on the outer webs and yellowish white on the inner. The under plumage is rufous, each feather marked down the shaft with a dusky stripe.

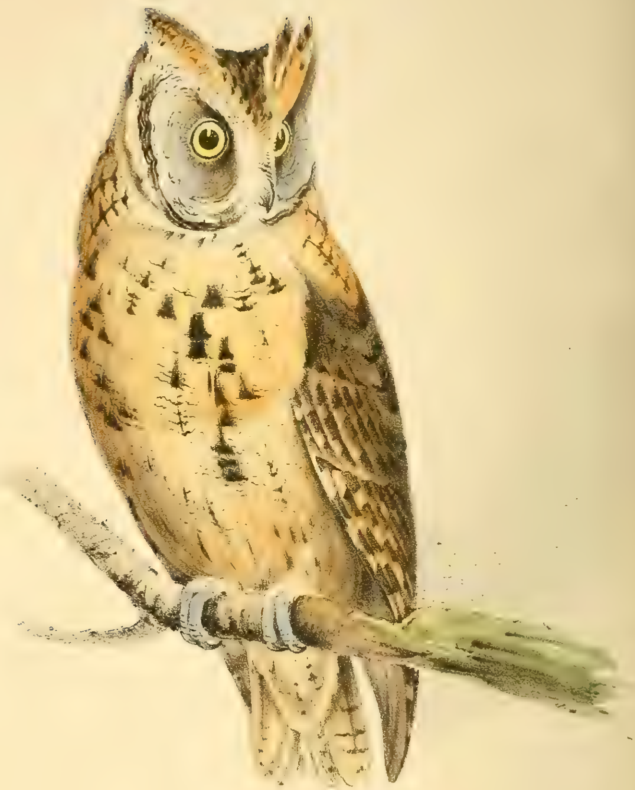


PLATE XXIV.

SCOPS-EARED OWL.

SCOPS ALDROVANDI. (*Ray.*)

THE Scops-eared Owl is known all over Europe, with the exception of the most northern parts; and in many parts of America, Asia, and Africa, where the climate is temperate or warm. In France and Italy they are very abundant and well-known, and frequently inhabit gardens and plantations in the vicinity of villages and towns. In such places they sit sheltered in a hole in a tree, or among the thick leafing, asleep the whole day, and come out in the evening to feed. In the south of Germany, and in the mountain forests of Austria and Switzerland they are known to breed, and the place chosen is usually a hole in a tree, or in a rock: the young birds are fed with beetles and other insects: when taken from the nest they are easily tamed, and will eat meat, either raw or dressed, potatoes, &c.

In a wild state their food consists of small birds, frogs, or mice, which they tear in pieces; and of insects, such as grasshoppers, cockchafers, moths, &c. Their flight is soft and wavering, but tolerably quick.

This beautiful little Owl is very rare in England, and very few instances of its appearance here have been recorded; it is only known as a summer visiter, and is supposed to leave even the warmer countries of Italy and France as winter approaches, and retire still further south.

This is one of the smallest of the Owls found in this country, measuring only about eight inches in length, and in expanse twenty and a half inches; the tail measures nearly five inches, and the wings reach a little beyond it when closed. The beak is strong, and measures three-fourths of an inch, and is dusky with a black tip. The iris is fine yellow, paler in the young than in the adult.

The legs are small and delicate, and closely feathered: the toes are unfeathered, and covered with scales; the tarsus measures one inch two lines, the middle toe and claw one inch one line, the hinder toe and claw three-fourths of an inch.

The tufts on the head of this little Owl are short and indistinct, and sometimes laid down upon the head; in dead specimens they are hardly distinguishable.

The whole of the upper plumage is composed of dusky rufous brown and grey, the brown predominates on the upper parts; the ground colours of the under plumage are ochre yellow and grey, with square dusky spots in the centre of some of the feathers, and largest on the breast; these are crossed by narrow waving lines; the quills are transversely barred with yellowish white and brown.

The egg numbered 24 belongs to this species; they are usually three or four in number.

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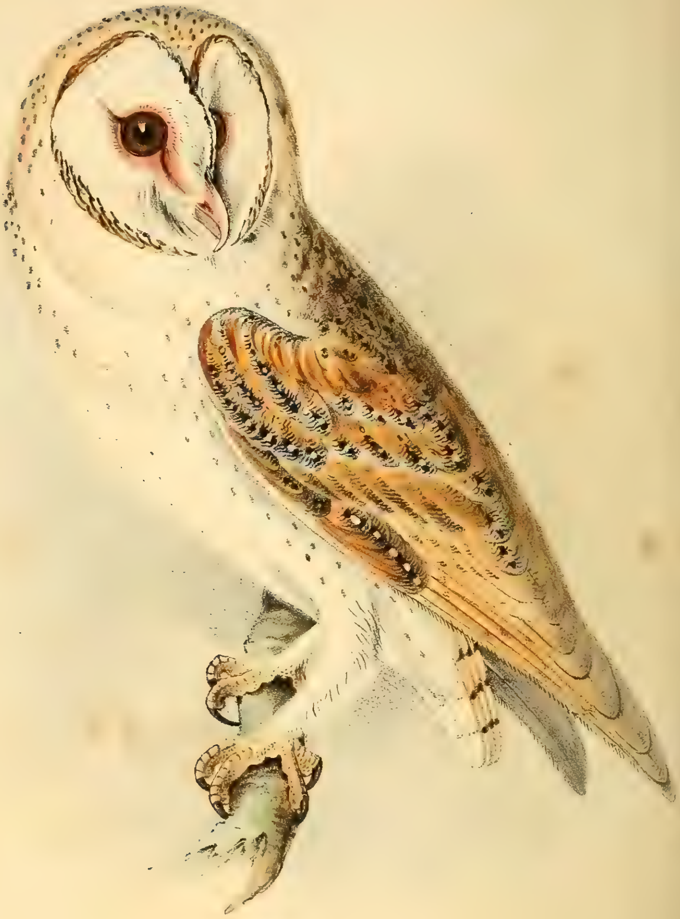

PLATE XXV.

YELLOW OWL.

Strix Flammea (*Linn.*)

This well-known species is the most beautiful of all the European Owls. Its face, which is surrounded by a most perfect frame of peculiarly-shaped feathers, is in the form of a heart, which, however, retains that form only as long as the bird is alive, as it becomes completely circular when the bird is dead. Its feathering is particularly soft, and most beautifully pencilled towards the tips of the feathers on the upper parts, with black on a white ground. The legs and toes are of a peculiar appearance, the wings are long, and the tail short and narrow; the first quill feather is much serrated, the third and fourth quills are the longest. The outer part of the ear is particularly large, and the frontal ear muscle forms a perfect covering or flap.

The Yellow Owl measures from fourteen and a half to fifteen inches in length, and thirty-nine inches in expanse; the tail is five inches long, and the wings extend an inch and a half beyond it when closed. The beak is somewhat lengthened and beautifully hooked towards the tip, measuring one inch and an eighth in length, and is white horn colour approaching to flesh red; the nostrils oval. The eyes are placed very deep, and are not so enormously large as in some owls, the iris is dark brown, and the pupil bluish black. The legs are thin, closely covered to the ancle with most silky feathers, becoming naked towards the feet, where the flesh red shows through the dirty hairs that sprinkle them; the appearance resembles most of all the odious legs of a hairy spider. The dusky claws are thin and much pointed, the middle claw has a comb-like ridge on the inner side. The tarsus measures two inches and a half, the middle toe and claw one inch and a quarter in length, the hinder one inch.

The ground colour of the upper plumage of this owl is sienna yellow, the tips of the feathers beautifully pencilled with dark purple. The feathers of the disk or face are white, the eyes are surrounded by a rust-coloured halo which extends downwards to the beak. The small stiff feathers which form the frame are rufous and dark brown. The throat and all the under parts are white tinged with ochreous yellow, sparingly spotted with dark brown drop-shaped spots near the tips of the feathers. The top of the head, nape, shoulders, and the whole back are blushed over as it were with pale ash grey, which appearance is caused by the tips of the yellow feathers being pencilled with that colour. The shoulder-feathers and wing-coverts are beautifully ornamented with one or more pearl-like white spots, bordered with black, and appearing like beads strung together. The larger quills are buff yellow on the outer webs, paler on the inner, and terminating in broad white edges; these are barred with black and white freckled spaces. The tail is yellow, tipped with white, and spotted and barred with black. The soft feathering on the legs is faint rust-colour or white; the under wing-coverts pale rufous yellow, spotted with dark brown; the quills on the inner surface are yellowish white; towards the extremity the dark bars show faintly through.

The male and female are in outward appearance very much alike, the latter is more plump and darker coloured. Young birds are paler in colour, the lower parts being less tinged with yellow. Some varieties of this bird have been recorded, the most remarkable are one which was pied yellow and white; and another of which the ground colour was perfectly white, and the pencillings on the upper plumage very indistinctly defined in the palest possible colouring.

The Yellow Owl is known in all the temperate regions of the globe; it hardly extends northward in Europe so far as the southern parts of Sweden, but is well known in the south of Asia, Africa, and America, and very numerous in Tartary. In consequence of its residing generally near the habitations of man, it is every where a bird of familiar appearance; it does not frequent mountains or forests, but inhabits the vicinity of villages and farms, and is even met with in large towns, where it hides in towers, church steeples, holes in walls, crevices, &c.: barns and pigeon houses are much frequented by them; old ruins it is most fond of, where it sits all day in a sleeping attitude. Sometimes it also hides in a hole in a tree, or in the shelter afforded by an evergreen.

In very cold weather a number have sometimes been found sitting close together for the purpose of keeping each other warm; and it appears as if the male and female constantly associate together throughout the year.

The appearance of this owl, in consequence of its three-cornered or heart-shaped face, is very singular, and bears much resemblance to a monkey. When asleep the face is much lengthened, and the dark brown spots descending from the eyes give it a very ludicrous expression. During the day the eyes are only opened in the form of a narrow slit; at night they are wide open and peering about; the face is then also more rounded. In confinement this bird is very easily tamed when taken young, or brought up from the nest.

The flight of these birds is soft and without the least noise, slow, wavering, and often near the ground. As soon as it begins to be dark they commence their search for food, and carry on the chase, if moon-light, until the morning; during this time they frequent fields and meadows and copsewood in search of mice, rats, moles, small birds, and coleopterous insects. These birds are said to collect and hoard up food and carry it to their place of resort, as if in store against dark nights or unfavourable weather.

Many of this species live in a state of half domestication in barns, stables, malting-houses, &c. where they receive careful protection from the owners in return for their invaluable services in destroying mice and other vermin.

The following fact, which came under our own observation some years ago, shows the little fear that these birds entertain for men. One of these species which inhabited some fir trees in a cottage garden, became so tame that it would enter the door or window of the cottage as soon as the family sat down to supper and partake of the meal, either sitting upon the back of a chair or venturing on the table; and it was sometimes seen for hours before the time watching anxiously for the entrance of the expected feast. This exhibition was seen regularly every night, until some unfortunate sportsman put an end to its life.

The Yellow Owl is in its actions one of the most grotesque of its tribe. When a newly-caught one is put into a cage, it sits quite upright in a corner, crowding itself against the wall or wirework, with its long, thin, white, harlequin legs pressed together; sometimes, as in a paroxism of fear, it will fall flat down upon its side and remain as if dead, then slowly raising its head it peers stupidly about, or starting up flies at the object of its fear, with its feet thrust forward and its sharp claws extended. All its actions appear rather those of a puppet governed by the hand of an unseen operator, than the result of its own volition. One individual that we had for a considerable time used every morning, on our entering the room where it was kept, to perform an extraordinary evolution, as if intended for a polite and respectable salutation; this commenced by slowly spreading its ample and beautiful wings, then lowering its puffy head, and at the same time throwing it forward, it complacently moved it from side to side for some minutes.

When taken full grown, they are sometimes very stubborn and refuse all food, pass the day moping in a corner, and the night in vaulting about the place of confinement in ineffectual attempts to escape; these stratagems have, however, the desired effect, the unfortunate captive excites pity, and is eventually set at liberty. The living subject from which the plate was taken was the polite bird above mentioned.

The young of owls are proverbially hideous creatures, and we think (parent though we be) that the eagle, in the delicious fable of Lafontaine,* deserves to be freely pardoned for not recognizing as the children of his friend, which had been described to him as

"Mignons
Beaux, bienfaits, et jolis, sur tous leurs compagnons."

which he afterwards met with, and with such exquisite deliberation proceeded to demolish for his evening meal. We may conclude they belong to the species under present consideration, for various reasons, especially the locality assigned them by the fabulist (and there is much truth in fables) who thus proceeds to the fatal catastrophe :—

———— "Un beau soir qu'il étoit en pâture,
Notre aigle aperçut, d'aventure,
Dans les coins d'une roche dure,
Ou dans les trous d'une masure,
(Je ne sais pas lequel des deux)
De petits monstres fort hideux,
Rechignés, un air triste, une voix de Mégère
Ces enfants ne sont pas, dit l'aigle, à notre ami ;
Croquons-les."

But we must intreat the forgiveness of our readers for thus interrupting the truth of our history by such fabulous digressions.

The egg No. 25 in the plate belongs to the Yellow Owl.

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* L'aigle et le Hibou.

PLATE XXVI.

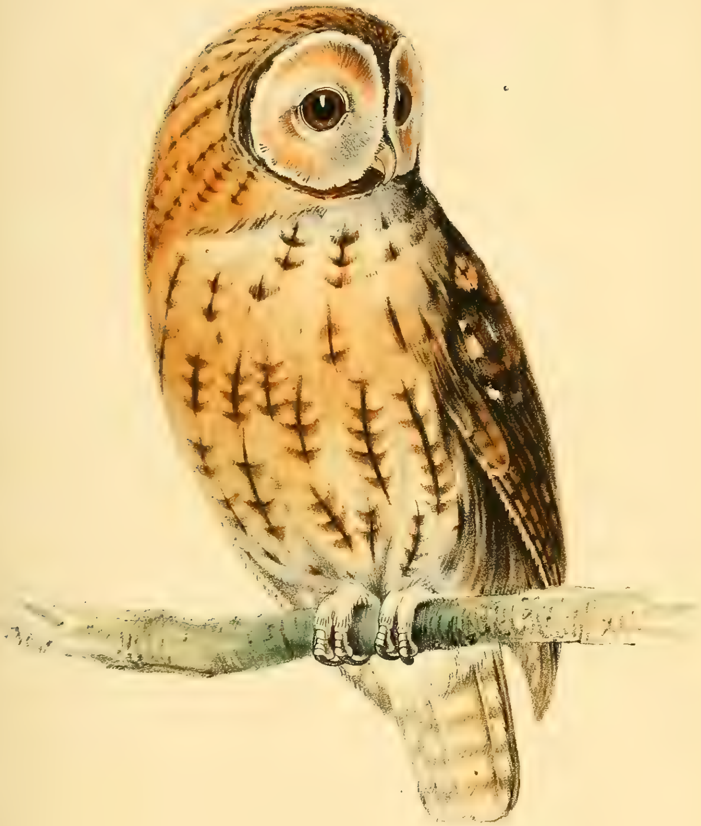
TAWNY OWL.

ULULA STRIDULA.

THE Tawny Owl is about sixteen or seventeen inches in length, and from thirty-nine to forty inches in expanse; its tail measures between seven and eight inches in length, and the wings when closed reach nearly to the end of it. The feathering of this bird is very loose and puffy; the head and neck are thick, almost equal in size to the body; its face is large and nearly round; the eyes are particularly large; the exterior opening of the ears is of moderate dimensions, oval in form, and barely half as high as the cranium. The first quill-feathers are serrated on their outer edges, and the fourth and fifth are the longest in the wing.

The beak of the Tawny Owl is proportionately large, much hooked, measuring from an inch and a half to an inch and five-eighths in the arc from the forehead to the tip, and not toothed; it is pale horn colour: the cere which covers the rounded nostrils is greenish. Its eyes are very dark brown, the pupil blue black, having an opaque appearance; the eye-lids are dingy flesh-coloured; in the young, reddish grey.

The legs are rather short, and almost entirely covered with woolly feathers; the soles of the feet are naked, and rough or warty in substance, and dirty yellow in colour; the claws are tolerably large, pointed, but not much bent, horn coloured, with black tips. The tarsus measures two inches in length,



Pl. 26.

the middle toe including the claw not quite two inches, the hinder toe and claw a little more than one inch.

In the adult male the bristling feathers of the face are greyish white, intermixed with black near the beak, and sparingly dashed with grey, particularly about the ears. The frame which surrounds the face consists of small rounded feathers, which are black in the centre, edged, spotted, and barred with white and rufous; about the ears and below the beak the brown prevails, as does the grey about the eyes. The forehead and top of the head are dark brown tinged with rufous; the neck and back feathers are dark brown in the centre bordered with brownish grey, and spotted with dusky and tinged with rufous. The wing-coverts are almost like the back, with more spots of dark brown, in the shape of waving lines: the large are sparingly spotted with white; the shoulder feathers are grey, spotted, streaked, and speckled with dusky, the outer sides marked with pear-shaped irregular white spots bordered with black; and when the feathers are a little displaced, these markings form so many interrupted lines. The quills are barred with dusky on a ground of rusty yellow; the secondary quill feathers are marked in the same manner, but the bars are narrower and more confused; the tail feathers are a pale grey, speckled and dusked with dark brown, the tips white; these feathers are also barred, but the bars are frequently only perceptible on the inner webs. The under wing-coverts are white barred with pale brown; the underparts of the tail and quill feathers the same but paler. The feathers of the neck and breast are dirty white, marked with rust-coloured brown in the middle, with a dusky streak down the shafts, which terminates in zig-zag lines or spots. On the lower part of the breast these dusky markings form frequently indistinct crosses; the belly and under tail coverts are white, with brown shaft streaks; the covering of the legs yellowish white, speckled with brown.

The principal distinction in the colouring of these owls consists in the ground colour, as the markings are nearly all alike; they may vary in different specimens from being more numerous to less so, paler or more distinct, but they retain the same character and expression. The young females of the Tawny Owl have a peculiar appearance, in consequence of the tinge of rufous with which they seem to be dyed. Their face partakes of the same colouring, except about the region of the beak, which is beset with mixed black and white bristling feathers. This rufous colour extends over all the upper parts, and the dusky markings are more distinct. On the lower part of the breast the shaft streaks are more simplified, and only now and then branch out on the sides into cross bars. There are hardly any bars to be seen on the tail, and those of the wings are narrower than in adult birds.

By comparing a number of specimens it may be seen that the fox-coloured birds are young females; the reddish brown, young males; the reddish grey, old females; and the pale grey, adult males.

The Tawny Owl is plentiful all over Europe, the north of Asia, and probably in North America; wherever there are trees and forests: whether the country is flat or hilly is indifferent. During the summer months these birds remain in the thickest parts of the woods; in autumn and spring they frequent copse and young plantations; and in the winter large orchards about villages.

While the leaves remain on the trees they perch on the branches among the thickest foliage during the day-time, which they pass usually in sleep; during the winter season they hide themselves in holes of trees or rocks, or in old buildings.

It is difficult to imagine how the owl can have become associated with the idea of wisdom, and dedicated to the goddess of that attribute, unless in mockery, or to show how short a step there is between the sublime and the ridiculous.

The feathering of this Owl stands generally at right angles from the body; its thick head seems to be only stuck on the shoulders, as it turns it from side to side with so much facility, and sometimes sits with the beak resting on the back, its large eyes winking slowly. When this bird takes flight it flies slowly and heavily, beating the air lazily with its blunt and arched wings ; in the dark, or at moonlight it is a little quicker in its movements. This Owl hoots, and has frightened the superstitious of many nations with its call.

The Tawny Owl feeds chiefly on mice of all descriptions, and also on moles, frogs, beetles, and other large insects; young hares and rabbits are occasionally taken by it; small birds which it can surprise at rest it eagerly consumes : all these it seeks by twilight or during moonlight nights, for which purpose its entirely noiseless flight is of great service.

Early in the spring these birds begin their pairing call (which sounds like a satirical laugh) and commence their preparations for breeding, for which purpose they choose a hole in a tree, in which they collect moss and feathers; but these materials are scarcely sufficiently arranged to bear the designation of a nest. The female deposits from three to five eggs, and the young are hatched in about three weeks; they are blind for some days, and their red eyelids have the appearance of being inflamed, particularly in contrast with the grey coloured down with which they are clothed. The appearance of these birds while nestlings, and before the growth of the feathers, is very extraordinary; the whole bird is covered with pale grey woolly down, and resembles nothing so much as a pair of Shetland worsted stockings, rolled up, such as might have belonged to Tam O'Shanter; and, except when the bright round eyes are opened, it is impossible to suppose the object to belong to the animate creation.

This Owl soon becomes tame in confinement; one which we reared from the nest quite domesticated itself in the family. It inhabited un out-building in which various household affairs were transacted by the servants, to one of whom it was evidently attached; and as the building was much covered with ivy, which obscured the light, it would sit in the daytime and watch her operations with all the familiarity of a favourite cat; no restraint was put upon its liberty, yet it seldom strayed beyond the residence to which it had attached itself.

This bird amused us frequently by an exhibition which at last cost the poor creature its life. It was fond of washing itself in a tub of water which usually stood in the place where the bird was kept; and the dreadful sight baffles all description, when this wretch sat on the edge of the tub dripping wet, with its feathers all sticking close to its sides: the only thing imaginable that we can compare the object to, for to call it a creature in that state would be mockery, is the black remains of a burnt paper candle-lighter, surmounted by two glaring eyes. This pastime ended tragically; the poor owl having once by mistake plunged into a tub of food prepared for the pigs; and ended his career in consequence of the vessel being deeper than his usual bath.

The superstitious belief that owls are harbingers of death is too prevalent among the uneducated, and too generally known to need more than a passing observation; but I cannot forbear to relate a circumstance respecting this subject which occurred under my own observation. My father's gardener had an ailing wife; and one Sunday morning my father, on passing near the cottage where the family resided, was much concerned to see the man and his two sons in deep mourning, and concluding that the invalid wife was dead, felt rather shocked and pained that he should not have been sooner made acquainted with the loss sustained by the afflicted family, and consequently approached in haste to offer his condolance. He was presently undeceived by the husband, who assured him that his wife was as well as usual, but that he nevertheless anticipated her approaching death, which would undoubtedly take place within a few days (I believe nine was the period fixed) as a brown owl had passed over their cottage, and had since been heard nightly to hoot in the very close in which the cottage stood. He explained, that as the family had been under the necessity of purchasing each a new suit of clothes to make a respectable Sunday appearance, they thought it most advisable to provide themselves at once with mourning, in order to avoid the double expense of purchasing again.

Whether from the baneful influence of the poor owl, or from the impression made upon the woman's own mind by the ominous circumstance, and by being so unanimously consigned to her grave while yet alive, I will not decide, but within a very short time after this circumstance she really did terminate her mortal career.

The egg No. 26 belongs to this species.

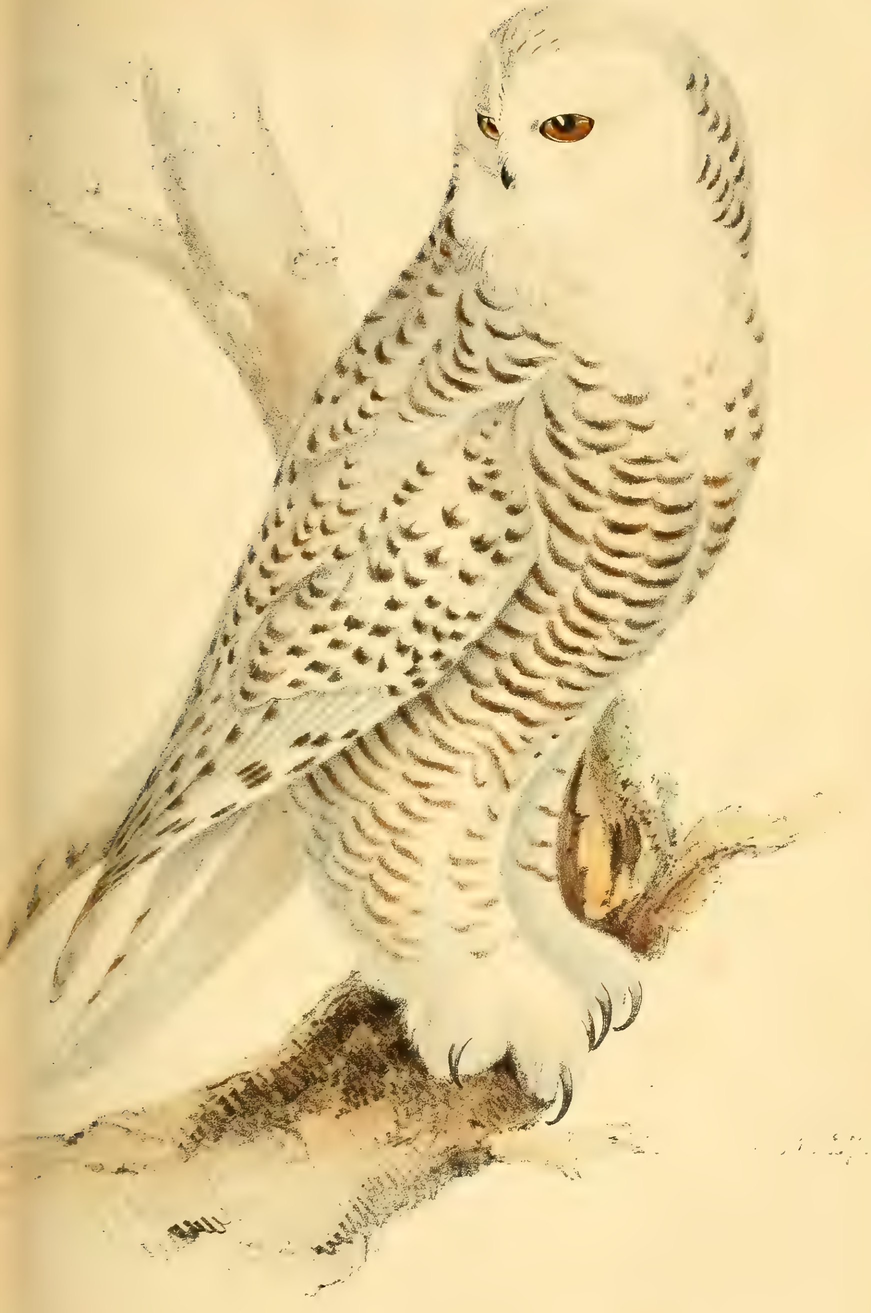
PLATE XXVII.

SNOWY OWL.

STRIX NYCTEA. (*Linn.*)

THIS Owl is particularly distinguished from all its congeners by its small head and face, in proportion to the size of the body. The fact of its being a diurnal feeder may be discerned in its slender make, and greater agility, and it differs in some other respects from the night-flying owls; its feathering is firmer, the wings are narrower and more pointed, and there is no serrated border on the edge of the quill-feathers: of the usual disk of the face hardly any trace is to be found.

This large and handsome bird, which is the next in point of size after the Eagle-Owl, belongs to the more northern regions of Europe, Asia, and America; is well known and plentiful in Greenland, in Hudson's Bay, and in the islands of the Arctic Sea. Although the Snowy Owl is able to bear the severest cold, it migrates towards the south during the winter season. In America, for instance, it occurs as far south as Pensilvania, and in Asia is found in Astrachan. In Hudson's Bay, the north of Siberia, and in Kamschatka they are very common, and by no means rare in the north of Russia, Lapland, and the north of Sweden. To the southern parts of these countries, and to Poland, Prussia, and the north of Germany they only travel during winter; and although of uncommon occurrence they have been captured in



the heart of Germany, and also been seen in Switzerland. In the northern parts of Asia and America they are not unfrequently met with near the habitations of men. Mountainous and wooded country seems to suit their choice best; but in North America they are not uncommon among barren and perpendicular rocks.

It is said that the Snowy Owl is very shy; and such may be the case with a single wandering bird, when out of its latitude with us ; but many instances have been recorded of these birds accompanying a sportsman during a whole day when out shooting, and of their seizing upon and consuming before his eyes the game which he has brought down with his gun; and even when a shot is fired, they come to the well-known sound in order to obtain food in an easy manner.

The cry of this bird has been compared to the grunting of pigs, or the lamentations of a person in great danger.

In their actions they are as agile as the Hawks; and in their flight bear more resemblance to them than to the owls in general. Their flight is quick and powerful; and they sometimes continue the chase in search of food all day long, even in hot summer weather ; as although they can bear the severest cold, they do not mind a tolerable degree of heat. They are said not to live long in confinement, although we can refer our readers to the beautiful specimens in the Zoological Gardens, which we have known there for some years, alive, and in good condition.

The food of the Snowy Owl is hares, rabbits, and other animals, and every kind of bird, as wood grouse, partridges, &c. In the northern climates they consume a great quantity of ptarmigans. When on the look out for their prey, they fly near the ground, and strike the object of their pursuit with the feet, throwing themselves upon it in a slanting direction: the smaller mamalia are thus caught when running. If unable to obtain living food, these birds will feed on carrion.

The Snowy Owls build their nests according to report on rocks, or on the bare ground. They usually breed in high northern latitudes: the female deposits three or four white eggs. In the north, where they cannot breed very early, the young do not fly before September. Some nests of these birds are said to have been found on the eastern shores of the Baltic: one of them was placed on the ground near a bush, and was composed chiefly of holly branches.

The Snowy Owl rarely makes its appearance in our latitudes; several individuals have, however, been met with in the Orkney and Shetland Islands, some in the northern parts of England, and a few stragglers have been found as far south as Norfolk. They have usually been observed in this country in open and exposed places, such as the moors of Northumberland, or on rabbit warrens on the sea coast.

At present we have been unable to obtain a specimen of the egg of this species; but trust we shall have the opportunity of representing it in some future number of the work.

The length of the Snowy Owl is above two feet, expanse five feet, length of the wing from carpus to tip seventeen to eighteen inches; the tail, which is wedge-shaped, measures ten inches; and the wings when at rest cover two-thirds of its length. The beak is black, powerful, and beautifully arched, and measures one inch and seven-eighths in the outer circle, from the forehead to the tip. The nostrils, which are placed in the thin black-coloured cere, large and round, and the iris of the eyes bright orange yellow. The legs are so completely and thickly covered with feathers, as to have the appearance of wool, and the large black claws are the only part visible, the soles of the feet even being entirely hidden by the feathering. The tarsus measures two inches and a quarter in length, the middle toe and claw three inches, and the hinder with the claw two inches: the claw of the inner toe is the largest. Of the beak there is only a small part visible among the bristling white feathers by which the face is entirely covered.

In very old birds the plumage is white as snow without any spots. Mature birds of less age are spotted with dusky on the wings and back part of the head, back, shoulders, and breast; the latter frequently representing waved bars. Younger birds are generally marked and spotted as follows :— The face, throat, upper part of the breast, and woolly feathering of the legs are white; the top of the head and back part of the neck are marked with small round dusky spots, which become larger towards the back, but decrease in number on the rump; on the shoulders and wing-coverts the spots are numerous, and crescent shaped; those on the breast and side feathers are narrow, transverse, and of a lighter colour; the quill-feathers are marked with large dusky spots, and the tail-feathers, with the exception of the outer, which are quite white, have one half-moon shaped spot near the tips, and some dusky round spots near their roots.

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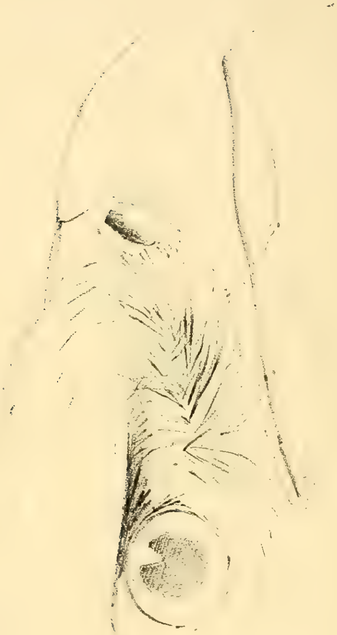


In consequence of the omission, for the present, of the eggs of the Canada and of the Snowy Owls, we have taken the opportunity of representing, in its natural size, the beak of one of the Raptorial order of birds of prey, which we hope will be considered a desirable addition to the work. The subject chosen is the beak of the Golden Eagle; on similar occasions, the beaks, feet, or other parts of various birds, illustrative of the subject of the work, will be in like manner subjoined.

The No. 2 affixed to the present head agrees with the number assigned to the Golden Eagle in its own plate.

PLATE XXVIII.

CANADA OWL.

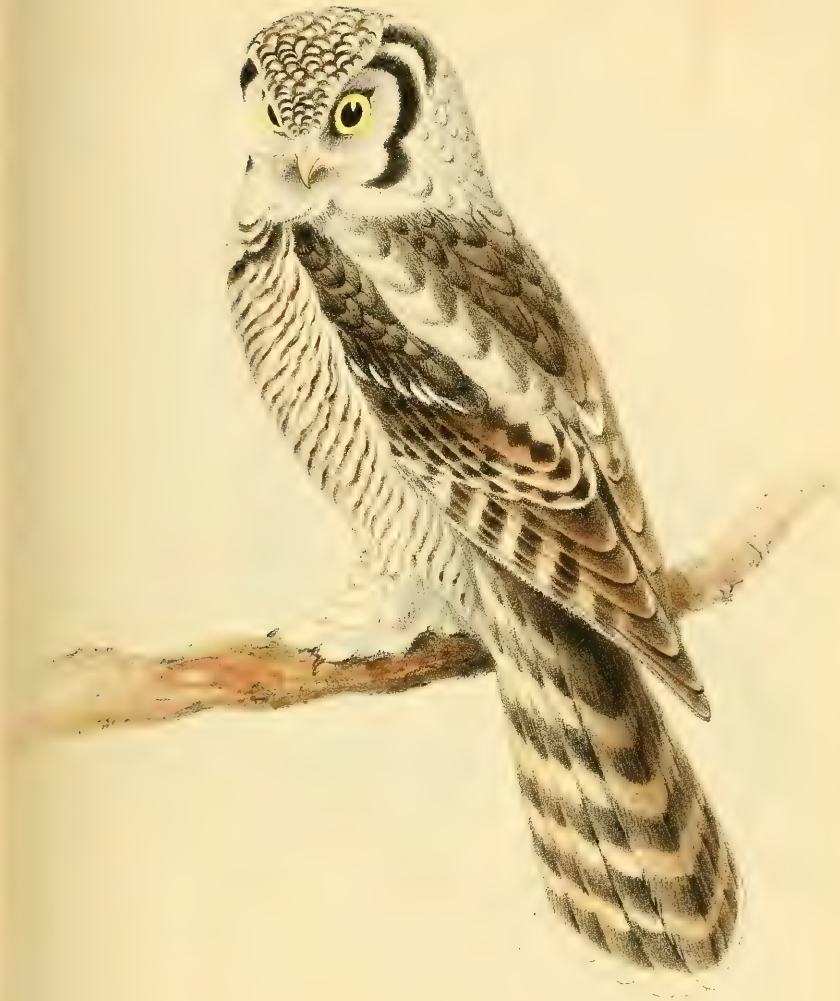
Strix Nisoria.

This Owl is about the size of the Short-eared Owl; the head and face are, however, smaller, the wings shorter and more pointed, the tail much longer, and the beak more like those of the hawks. In point of form it bears much resemblance to the harriers.

In the size of various specimens there exists a considerable difference, without reference to its age or sex. In length this Owl measures from sixteen to seventeen and a half inches, in width from thirty-one to thirty-two inches; the tail is seven and a half inches long, of which half is covered by the wings, and it is so much rounded that the middle feathers exceed the outer by two inches in length.

The beak is thick and beautifully arched, the upper mandible measures one inch in the arc, the lower is somewhat compressed at the edge, with a slight indentation near the tip. The eyes are not so large as those of other Owls; the iris is sulphur-yellow.

The legs, as well as the upper part of the toes, are fully feathered, the tarsus an inch and a quarter long, the middle toe and claw one inch and three quarters, the hinder the same, but the claw alone occupies ten lines. The soles of the feet are dirty yellow; the long, finely-arched, dusky



claws are thin and pointed, and the one on the middle toe has a sharp cutting edge on the inner side.

This bird resembles, in general appearance, the diurnal birds of prey, but its legs are of the usual shape of the night Owls.

The plain colouring of brown and white is very pleasingly distributed in this Owl, and much more regularly than is the case in others of its tribe. The region of the beak and the face are covered with yellowish-white feathers, intermixed with fine black bristles, which latter are particularly close about the sides of the beak and the corners of the eyes. The frame which surrounds the face of Owls in general is very imperfect in the present species; about the ears is an indication of it in the shape of a black crescent; the throat is white; the breast, sides, belly, and under tail-coverts are also white, crossed with narrow dusky lines, as in the sparrow-hawk. The tarsi and thighs are of a yellowish-white, with pale dusky cross lines, the upper surface of the toes also feathered with the same. The head is dusky, each feather marked with a round white spot in such a manner that the dusky retains the upper hand; the white predominates about the nape and the hinder part of the neck. The back, rump, and shoulders are brown; the scapulars are white in the outer webs; the wing-coverts are brown, with a few white spots; the quill-feathers are dark brown, barred with yellowish-white; the first quill-feather is slightly serrated; the tail-feathers are brown, with eight or nine white bars, and white tips.

The male and female are much alike, the latter is rather the larger. In the young the colours are less pure than in the adult.

The Canada Owl belongs to the northern regions of the globe. In Europe it is found in Sweden and Lapland, but is rare in Denmark; in Asiatic Russia it is more common.

In North America, particularly in Canada and about Hudson's Bay, it is of very frequent occurrence. In the central parts of the continent of Europe it appears at uncertain intervals, being some years quite unknown, and at other times, for several years in succession, sufficiently plentiful to be considered common.

The appearance of this bird in England is confined to a single specimen captured alive on board a vessel off the western coast; when taken it was apparently exhausted with fatigue.

This Owl is a bird of the woods, but frequents copses and swampy woods in preference to forests of larger extent. When on the wing, these birds make themselves conspicuous by moving in circuitous rounds from tree to tree. When in pursuit of their prey they fly slowly, and are sometimes seen to mount to a considerable height, even in bright sunshine. The chief periods that they pass in their chase for food are, during morning and evening, but soon after sunset they retire to the woods. Sometimes they have been observed to roost on the ground in marshy localities, in the manner of the harriers. On account of the transverse lines on the under parts of the body, as well as their hawk-like flight when on the wing, they have been called Sparrow-hawk Owls; they are, nevertheless, readily detected as Owls by their thicker head.

Mice, rats, and other small mammalia, constitute their usual food, as well as small birds; and they are said to feed on ptarmigans in the winter season.

They are bold birds, and accompany sportsmen, in the more northern regions, to share their game. They bear the loss of liberty easily and become very tame. Their voice is pleasant and soft, resembling that of the kestril, and their call is often repeated in quick succession.

Of the breeding of these birds very little is known; they are said to lay two white eggs.

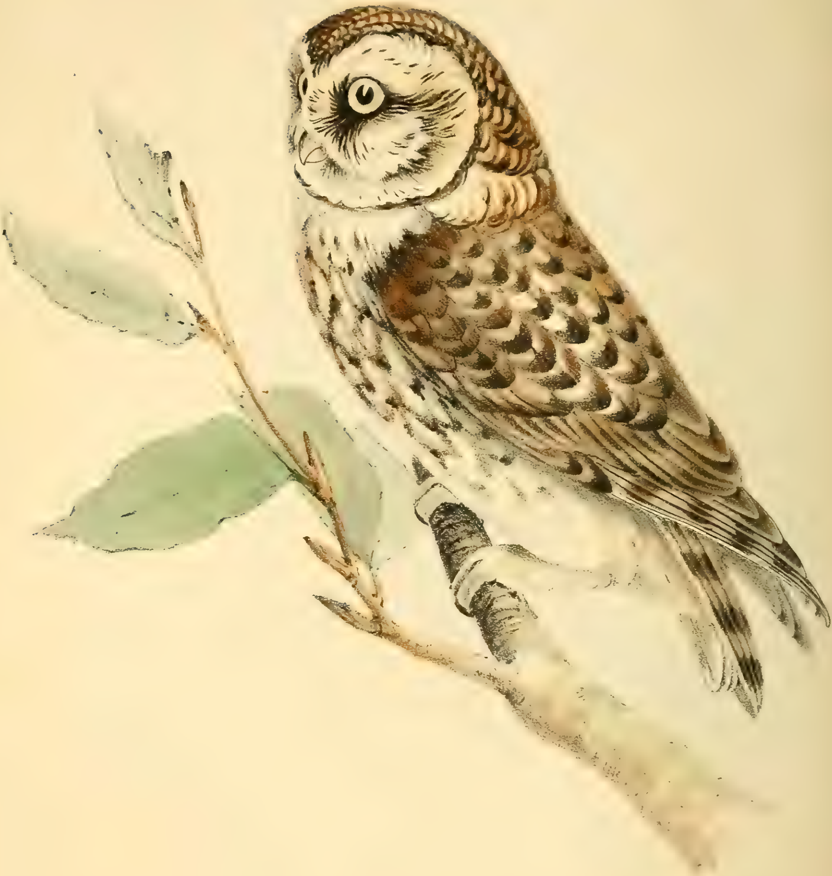


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PLATE XXIX.

LITTLE OWL.

NOCTUA PASSERINA.

THIS handsome little bird is the smallest of the British Owls, and in confinement very amusing and interesting. It is generally considered to be a rare species in Britain, although its habits may be the means of keeping it from the view of men. From its small size, and habits of concealment, it may generally be overlooked by sportsmen who go in pursuit of birds during the daytime; and gamekeepers or poachers who are on the look-out for birds at night, are not likely to fire at so small and unpromising an object. Linneus had quite overlooked this bird, which speaks greatly in favour of our supposition, as that greatest of all naturalists generally noticed whatever came before him, and although rare in this country, why should he not have met with it in other countries where it is said to be plentiful? The habits of this bird differ in many respects from those of other Owls. Its flight is quite distinct from others of its congeners, and resembles in its jerking manner that of the woodpecker and chaffinch. During the night its flight is rapid and strong, and frequently directed towards the light, in consequence of which it now and then darts at a lighted window, to the great disturbance and alarm of the inmates.

In its nocturnal flight, it frequently utters its varied cries, which sound something like kew, kew, or kewitt; when perched, it articulates pooh, pooh; and during the breeding season its call sounds something like a long drawn cooweeck. These varied sounds are still more modulated by the action of the air, if uttered when on the wing, and also in consequence of their being frequently mixed up together.

With exception of the highest northern latitude, this Owl is frequently found all over Europe; and in America, from New York to Hudson's Bay, but the central parts and south of Europe seem to be its favourite climate. In Holland it is common, and not rare in Switzerland; and all over the German states it is well-known. It seems to prefer the neighbourhood of men, provided it can avoid the immediate contact, as it inhabits towers and roofs of churches, which are seldom visited; vaults, tombs, holes, and crevices in fortresses, barns, and holes left in brick-work of any kind by the workmen for the purpose of fixing scaffoldings. Besides these hiding-places, it resides in young plantations in the vicinity of fields, or rocky country, where it can shelter during the daytime in a crevice of a rock or a high bank. It is also fond of hiding among the close branches in the top of a pollard tree,—any place, in fact, where the rays of the sun do not shine on it, and where it is hidden from the human eye; in such places it sits asleep during the day, but if disturbed flies off immediately.

Wherever these birds are found, they are either alone, at most in pairs, but never in companies. Their food consists of mice, beetles, and small birds, which they are said to lay up in store for any emergency; bats also become their prey. Small birds, as sparrows and larks, are surprised when they are at roost; half-a-dozen mice are said to be consumed by one at a meal.

This Little Owl has many enemies; the hawks pursue it on account of its small size; the weazel destroys its eggs, and if it ventures out of its hiding-place during the day, it is pursued and tormented by the rook, the magpie, or the jay.

During the breeding season, these Owls make a continual disturbance; they fly about, chatter, and call out even during the day. They nestle in their usual hiding-places, in a lonely tree or a large osier bed; they construct no nest, but deposit their four or five white eggs in a hollow, and the young are hatched after fourteen or fifteen days' incubation; they are clothed with white down spotted with brown. The food of the young ones consists of the same articles as that of the parent birds, and they are easily tamed when taken and brought up from the nest.

In consequence of the shortness of the wings and tail of these birds, they are almost the shape of a ball, especially when they ruffle their feathers. They measure from ten to ten inches and a quarter in length, and twenty-one to twenty-two inches in expanse; the tail is about three inches long, and straight at the extremity, and the wings when at rest extend three-fourths of an inch beyond it. The beak is very much hooked, and measures three quarters of an inch in length, in colour pale yellow; the cere is dirty yellow, in some specimens greenish, and covers the round nostrils in the form of tubes.

The changeable colour of the iris of this bird adds greatly to its beauty; in the course of a few minutes it varies from orange to silvery-white, passing rapidly through the various intermediate gradations of pearl-colour, sulphur, lemon-yellow, and bright gold. When several of these birds are in a cage together, these changes appear most curious and singular from the effect of contrast.

The appearance of the legs in this species is weak, the tarsi being closely covered with short feathers; the toes are only sparingly clothed with hair-like feathering, which allows the greyish yellow of the skin to show through to such an extent that, unless closely inspected, they seem quite naked; the soles of the feet are covered with small yellow warts. The tarsus measures nearly an inch and a half in length, the middle toe without the claw three-fourths of an inch, the claw itself nearly half an inch, and the hinder toe, including the claw, three quarters of an inch.

The hairy feathering of the face above and below the eyes is white, intermixed with yellow; the temples dusky with brownish-white, and surrounding the beak it is intermixed with black bristling feathers. The indistinct frame which only surrounds the face as far as the ears, is white, spotted irregularly with brown; the top of the head and back of the neck are greyish brown with oval white spots, tinged with pale rufous, and larger on the back than on the top of the head. The feathers of the shoulders, back, rump, and the wing coverts, are greyish brown, with a roundish white spot in the centre of each feather, which spot is divided in the middle by the dusky shaft; as these spots are not on the tips of the feathers, they are only seen in part unless ruffled, when they show very plainly.

The tail-feathers are like those of the back, but more brown than grey, with white tips, and five or six rufous-white spots on their edges, which form bars on the central feathers; the quill-feathers are darker greyish brown than the back, with the same square-shaped spots as the tail-feathers, the inner webs are whiter. The breast and belly are white, faintly tinged with rufous, and irregularly spotted or dashed with brown; these spots are larger, and consequently closer together on the upper part of the breast than lower down; the vent is yellowish-white without spots, as also the thighs and tarsi, the latter more tinged with rufous. The under wing coverts are white, with a few brown spots;

the under wing and tail feathers are marked faintly with the bars which shine through from above.

The female is a little larger than the male, which is, in fact, the greatest distinction in outward appearance between the sexes ; the fainter markings and colouring depend more upon age and season than sex, and the colours are much more pure after the autumnal moult than at any other time, and the white markings more deeply tinged with rufous ; the spots on the back and shoulders being frequently bordered with rufous. Young birds resemble the adult birds of the autumn, the white spots are larger, and the bars on the tail are more distinct.

The egg marked 29 belongs to this bird.

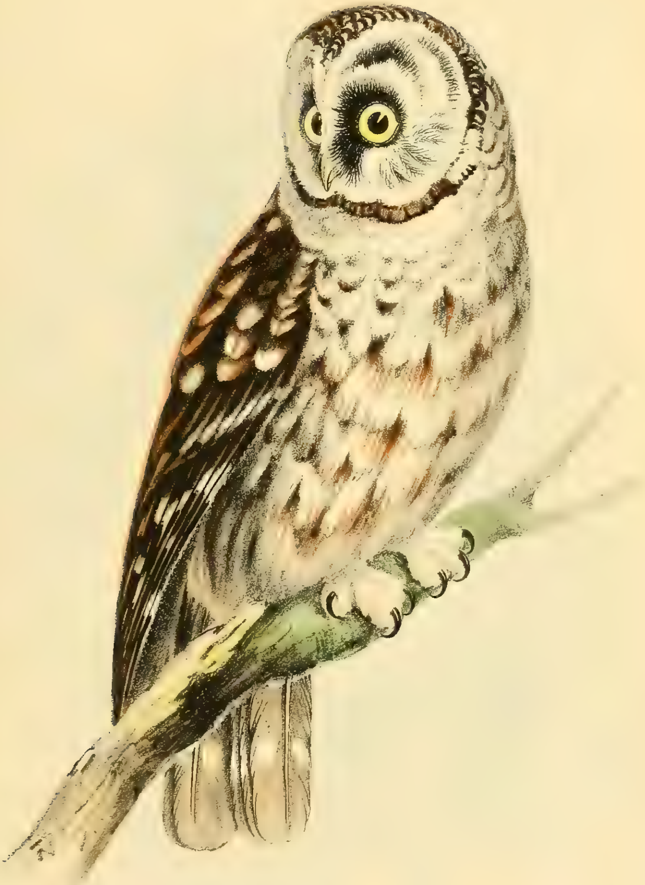
PLATE XXX.

TENGMALM'S OWL.

Noctua Tengmalmi. (*Selby.*)

The adult Tengmalm's Owl has frequently been taken for the Little Owl of the preceding plate, in consequence of the resemblance in their colouring; but, if compared together, the more slender form of the present, and the longer wing and tail feathers, as well as the woolly feet of Tengmalm's Owl, show the difference at a single glance. The present species measures more in length and expanse, but its body is actually smaller than that of the Little Owl. Its length is from ten to ten and a half inches, and its expanse twenty-three; the rounded tail is four inches long, and the wing-feathers reach to within one inch of the extremity when closed. The feathers of the wings are broader and softer than those of the Little Owl; the third quill is the longest, and the two outer ones are serrated. The outer ear-covering is so very large that, when turned over, half the eyeball may be seen within the head.

The beak is pale yellow, much hooked, and measures one inch in the arc; the cere, as well as the sides of the beak, are in some specimens dashed with black; the iris is lemon-yellow. The legs and feet are covered with downy feathers, and the sharp black claws project out without the toes appearing, although the yellow soles of the feet may be perceived; on raising the feathering there may be seen



a large scale over the root of the claws. The tarsus measures nearly an inch and a quarter, the middle toe the same including its long claw, the claw alone in the arc being almost seven lines; the hinder toe and claw is about three quarters of an inch long.

The feathering of the face is white, streaked about the cheeks and over the eyes with dusky, and is between the beak and eyes very long; close before the latter is a black patch; the feathers of the ring which forms the border of the face are white with brown tips. The whole of the upper feathering of this bird is fallow-brown, the top of the head closely speckled with small oval white spots; the back of the neck, the back and shoulders are also spotted with white, the spots being largest and most conspicuous on the shoulders. The wing-coverts are fallow-brown, the lesser without spots, the larger sparingly spotted on the edges of the outer webs with white; the quill-feathers are also fallow-brown, with round corresponding spots on the edges of both webs; the secondary quills have a few spots, and the tertials have more markings which assume rather a square form. The coverts under the wings are white, spotted sparingly with brown. The tail is also fallow-brown, marked with four or five roundish corresponding white spots. The breast and belly are white, spotted and streaked with reddish-brown. On the whole of the under parts the white predominates, the feathers being only tipped with brown; the covering of the legs and feet, and the long feathers of the vent, are white, the former a little tinged with yellow.

It is difficult to know the female from the male unless compared together, when the following distinctions may be observed;—the white of the face is dirty, the black spot before the eye smaller and paler, the lower part of the body more strongly spotted, and the brown of the upper parts more decided than in the male.

The young birds, before their first moult, differ very much from the adult, and might very easily be taken for different species; they are in every respect smaller than the parent birds, measuring only nine inches in length; the legs are covered with a more feathery substance, in consequence of those feathers being short. The beak is yellowish-grey, the iris yellow, the hair, and bristle-like feathers of the face black and dusky, with white roots; the frame around the face but very indistinctly coffee-coloured, a little spotted with white over the eyes; the whole bird is coffee-coloured, somewhat paler below than above; the belly and feet whitish, intermixed with brown, and the dirty-white vent-feathers tipped with brown. On the quills and tail-feathers are a few small, round, and three-cornered white spots which form, on the closed wings and tail, four cross bars. The first quill-feather is serrated; the soles of the feet yellowish-grey. The feathering of this Owl is particularly soft and loose, and it erects the feathers of the face occasionally to a considerable extent.

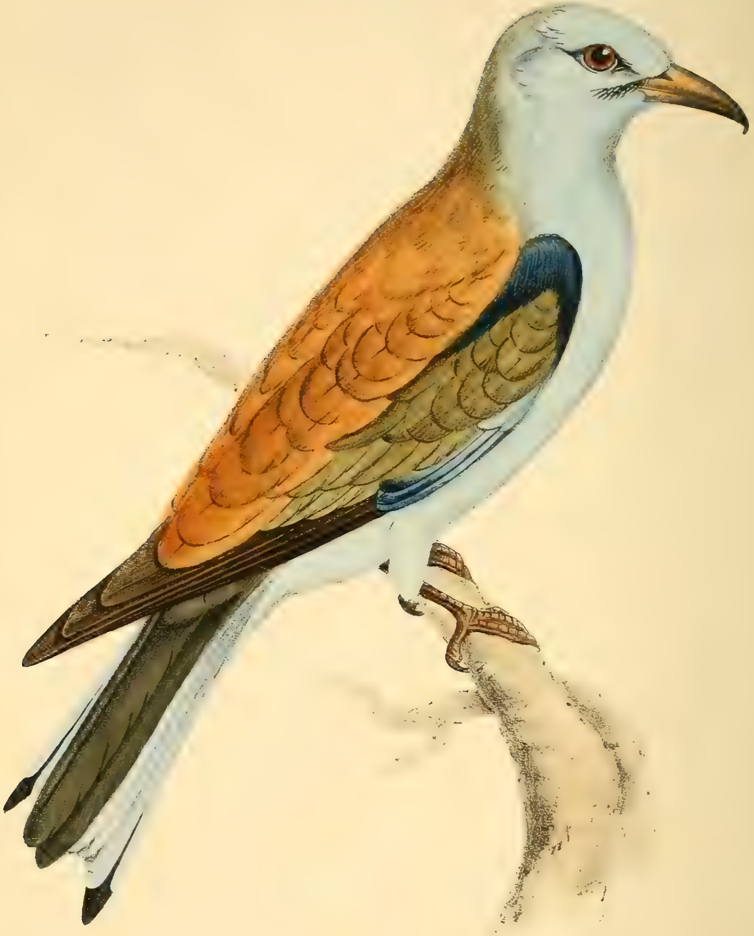
The temper of this bird is milder than that of the Little Owl, although he resembles it in outward appearance so much. All day long it sits on a branch, or in a hole of a tree, asleep, and does not move on the approach of man, but looks at him with half-closed eyes, and only squeezes itself closer against the tree on which it perches. When in confinement, Tengmalm's Owl is easily tamed, even when taken in the adult state. It assumes very amusing positions when caged, and erects the feathers of its face in such a manner as almost to form blunt ears, which it certainly does not possess in reality. Its flight is lighter and softer than that of the Little Owl, in consequence of the longer and broader wings, and bears most resemblance to that of the Scops-eared Owl.

The notes which the Owl at present under consideration utters are, a repeated call of *kew, kew*, followed by an equally repeated *cook ;* and during the breeding season a pleasing piping call of *cuk*, *cuk*, which is kept up for several minutes at a time.

These Owls are said to breed in a hole in a tree, and to construct no manner of nest. The egg numbered 30 belongs to this species.

Whether its great resemblance to the last-mentioned Owl, or some other reason can be given for the unfrequent capture or notice of this bird, is difficult to say ; but, although it has been obtained in almost every part of Europe, the collectors find it difficult to procure specimens for naturalists.

The Tengmalm's Owl is never met with in buildings of any kind, but frequents either thick pine forests, among the low foliage, or perches in an old stem of a tree, or in a hole in a tree ; also, in extensive orchards, pollard trees and juniper trees are a favourite hiding-place with it, as well as with other Owls. Its food consists chiefly in mice of all sorts, small birds, and insects, which are obtained during the night season only, and before sunrise these birds return again to their hiding-places : they eat but little at a time, and never swallow their prey whole.



INSESSORES.
FISSIROSTRES.

MEROPIDÆ.

PLATE XXXI.

ROLLER.

CORACIAS GARRULA. (*Linn.*)

THIS beautiful bird, an accidental wanderer to this country, may be readily distinguished from all other British birds by its splendid colouring, which bespeaks it to be of tropical origin.

The Roller is met with from the southern parts of Norway to the frontiers of Senegal. Throughout Europe this bird is of migratory habits. It is seldom seen in Britain, but visits the south of Europe very frequently, on its passage to Africa, where it passes the winter.

In its habits the Roller is very shy, and, unless an opportunity is offered for an observer to keep out of sight, it is very difficult to obtain a close view of it. In the morning, it may sometimes be seen in the country where this species abounds basking in the early rays of the sun, but its restless habits do not allow it long to remain stationary in one spot. Its favourite haunt is among trees, where it is continually moving from branch to branch and from tree to tree, perching chiefly on the bare projecting ends of the dead branches: it is not often seen on the ground, and its movements when it does alight are awkward and embarrassed, and its mode of progression is rather by hopping than by walking. The flight of the Roller is quick and exceedingly buoyant, resembling that of the pigeon. When flying, he flaps his wings very hurriedly, and tumbles frequently over and over. The temper of these birds is very turbulent and quarrelsome; they bite and fight with those of their own species, although they are in the habit of living very amicably with other birds, except the birds of prey. Their battles are carried to such an extent that they frequently fall to the ground together hanging by their beaks, and become in this state the prey of foxes, dogs, &c.; and in these angry contests they often pull bunches of feathers out of each other's heads, so that a specimen when obtained has frequently the head partly divested of feathers, or young feathers in the quills are seen about it, which can only be attributed to this cause, as these birds do not moult during the time they remain in our climate. Although they are so pugnacious and quarrelsome, they are usually observed to breed in society, one single pair being rarely seen alone at that period. When these birds arrive at their summer breeding-place, the males commence their vociferous and noisy quarrels, which continue until their mates are chosen, and they begin to be employed in the cares of incubation. The localities usually chosen for this purpose are the outskirts of woods of birch intermixed with oaks or pine trees; they build their nest in a hole in a tree, preferring shallow places, which they line with small fibres, straw, feathers, and hair, on which the female deposits from four to six very polished white eggs; these are incubated by both male and female during three weeks, and the parent birds sit so very close that they are frequently taken with the greatest ease upon the nest. The young are fed by the parents with insects and their larvæ. They are soon able to leave the nest and follow the parent birds into the fields, where they may be seen seated upon an elevation such as a stone or naked branch, from which they dart at the passing insects in the manner pursued by the flycatchers.

The same pair return often again and again to the spot they frequented the previous year, provided they have not been disturbed; they are particularly attached to their young.

These birds find very inveterate enemies in the buzzard species: weazles destroy many a nest and brood of the Roller.

Sandy and undulating countries are chiefly frequented by this species; swampy and mountainous parts they avoid, even during their migrations, if possible. They are summer visitants with us, although of rare occurrence.

The Roller measures thirteen inches and a quarter in length, and twenty-seven inches and three quarters in expanse; the middle tail-feathers measure above five inches in length, and are rounded at the tips; the outer feathers are narrower at their extremities, and extend five to six lines beyond the rest. The wings, when closed, cover two thirds of the tail.

The head is thick, the beak rather large, and compressed at the edges; from the forehead to the tip it measures one inch and a quarter, and is of a dusky horn colour. The nostrils are exposed, open, oval, and forming a slanting aperture. The iris is dusky, surrounded with a rim of grey or dusky-grey; the rings and strong bristling beard-feathers brown, and behind the eye is a three-cornered, naked, brown patch, or skin. The inside of the beak and swallow, and the tongue, are yellow; the latter is lancet-shaped, and fringed at the tip with brown hairs. The legs are stout, and feathered below the knee; the tarsi and upper surface of the toes are covered with coarse scales, and reticulated beneath. The tarsus measures one inch in length; the middle toe, with the claw, one inch and a quarter, and the weak hind toes hardly one inch.

The forehead and chin are whitish, the head, neck, breast, belly, thighs, of a fine bright greenish-blue, which colour, like that of the kingfisher, varies according to the light from blue to green. This colouring is lightest on the shafts of the feathers of the neck and breast. The back and hinder wing-coverts and shoulders are bright cinnamon-brown. The lesser wing-coverts and rump feathers splendid violet-blue, with a peculiar coppery tint. The coverts of the quill-feathers, or the feathers of the thumb, are pale blue. The narrow webs of the four first quill-feathers are black, tinged with green; the four succeeding are pale-blue from the roots to their middle, on the narrow webs, then violet, ending in black, whitish on the broad webs, and terminating in black; the remaining quills somewhat darker. All have dusky shafts, and all are, on the under parts, of a splendid blue, except towards the roots, which are greenish. The tail-feathers are, on the narrow webs towards the roots, fine violet, and pale blueish-green towards the tips, and the same all over the broad webs; the two middle feathers uniform olive-brown; the rest, with the exception of the outer ones, have a large blue spot, and the outer feathers are tipped with black; they are also larger and more pointed than the rest. The under part of the tail is dark-blue, and very pale blueish-green towards the tip, with a black spot on each side, which spots form the tips of the outer feathers.

Very old females resemble the males so much that they can hardly be distinguished.

The colour of the young females is invariably duller; the under parts are paler, and more inclining to green; the brown on the back is paler and greyer, the violet colour more dirty, and the blue under the wings is less dazzling; the tips of the quill-feathers are also more rusty-black, edged with dirty-whitish-green, and the tail-feathers of equal length.

The plumage of these birds does not obtain its full brilliancy before the third or fourth year in a wild state.

The young birds, after the first moult, are feathered as follows: the eye is brownish-grey, the beak brown, black towards the tip, and yellow on the corners of the gape; the legs pale yellow. The head, neck, breast, and belly, are dirty brownish-grey, with paler tips to the feathers, which reflect a weak olive-brown colour; the vent is whitish, tinged with bluish green. The back, shoulders, the hinder quills, and the greater part of the hinder wing-coverts, rusty yellowish-grey, in certain lights, tinged with olive and pale brown edges to the feathers. On the bend of the wing there is hardly any violet to be observed; the larger wing-coverts dirty bluish-green, as also the roots of the secondary quills, their extremities violet-black, with narrow dirty-white tips and edges. This latter extends to the quills of the first order, of which the first has a streak of bluish-green on the outer sides; the second has a brown streak towards the root, and the last has the root bluish-green, which colour extends over the wing-coverts. The somewhat irregular shaped tail is of an olive greyish brown, with a bluish-green reflection on the outer side. The under parts of wings and tail as in the adult, but less brilliant.

In the nest feathering these birds are very dull coloured; the head, neck, lower part of the back, and the whole of the under parts, are tinged with a dirty pale greyish-green; the upper part of the back and shoulders greyish brown, with an overpowering tinge of dirty green; wings and tail as in the last described; the iris grey, the legs pale brownish-yellow.

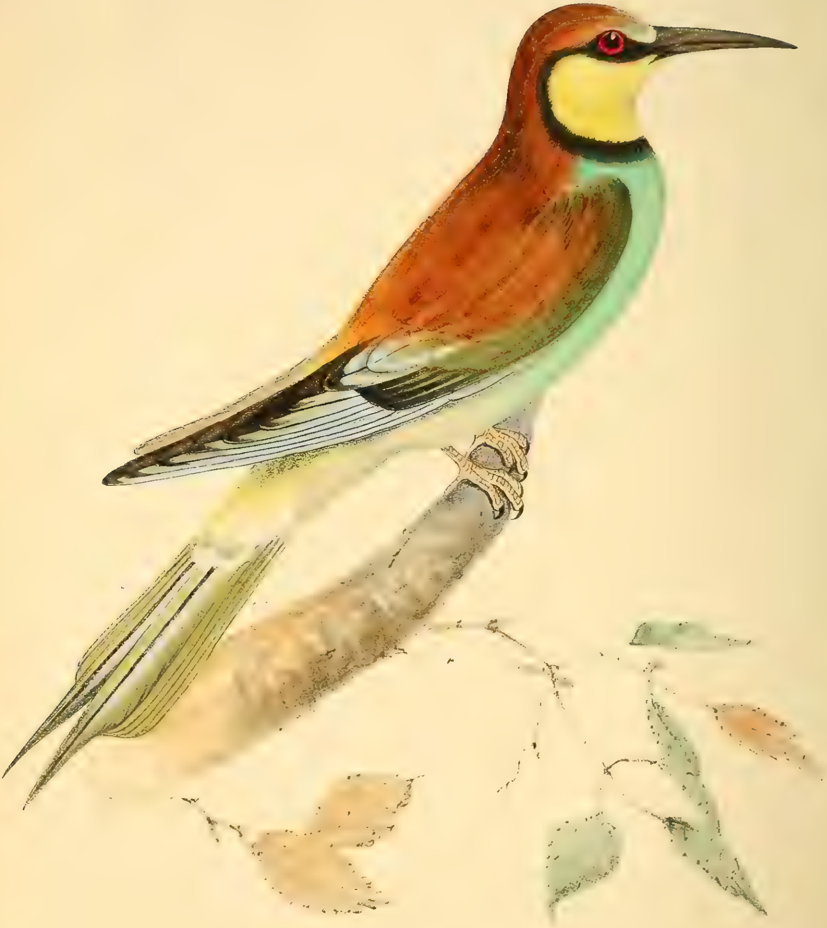
Their moult takes place in the warmer countries towards autumn, as they are most brilliant in the spring when they return to Europe.

The name of *Garrules* is very properly bestowed upon these birds, as they make a continued chattering which most resembles that of the magpie. Their call is harsh and shrill, sounding like *rakker, rakker!* which is repeated in quick succession, and when they are at high words together, they utter with it another note, something like *wrah, wrah!* a plaintive call of *crea!* is their call note. During the time of incubation, the male mounts to some height in the air, provided the weather is fine, and repeats his varied calls; he then throws himself quickly down, tumbling over and over, and resumes his station on a dead branch.

Mature birds, when taken, never become tame, or long outlive their freedom; but if taken from the nest, they may be brought up, provided they can be supplied continually with fresh liver, which is found to be the most digestible food for them. They may be brought up also upon insects, worms, small minced meat, &c., and they soon learn to feed themselves, and, by degrees, will live on lark's food. They become accustomed to their keeper, but to strangers they remain wild and shy.

The food of the Roller consists of insects, such as beetles, grasshoppers, &c., also the larvæ of insects, worms, and small frogs. These birds eject the hard wing-coverts and legs of beetles and other insects, in the same manner as the birds of prey. They are said never to drink.

The egg No. 31 belongs to the Roller.



Pl. 32.

PLATE XXIII.

BEE-EATER.

Merops Apiaster. (*Linn.*)

The Bee-eater has, in several instances, been taken in this country, according to the testimony of several authors, but it appears only during its migration as an occasional visitor from the warmer climates of the old world, where this species chiefly resides. Whenever one of these birds has been obtained in England, it has been observed to be in company with others of its species, and such little flocks have possibly been driven out of their course by contrary winds, or have deviated from it in pursuit of a swarm of insects, which, like a will-o'-the-whisp, has led them astray. As these birds associate in society, like the swallow tribe, and take their food upon the wing, our supposition of the manner in which they stray to this country is more than probable. England appears to be their most northern limit, and cannot be considered as of a suitable temperature for them, since the climate cannot possibly be mistaken for a warm one.

The beauty of the feathering of this bird must be acknowledged to surpass all others in the list of British birds. The colours of the mature bird are vivid and rich, and disposed as follows:—the forehead is white, beyond which is a band of emerald green, extending from eye to eye. A black band runs from the beak, through the eye, to the back of the ear-coverts, and from thence it continues in the form of a gorget round the lower part of the throat, where it divides the golden yellow that covers the throat, cheeks, and swallow, from the emerald green of the breast. The top of the head and nape are of a rich chesnut-brown, extending over the wing-coverts, and half way down the back, but in a lighter tint.

The lower part of the back is golden-yellow, the upper tail-coverts are blueish-green, tinged with a gold cast, the lesser wing-coverts are olive-green, the larger rufous, or cinamon-coloured, here and there tinged with green; the secondary quill-feathers are cinnamon-brown, with black tips; the primary quill-feathers are greenish-blue, with black tips, and brown edges on the inner webs; the shafts of all the quills are black and strong; the edge, or carpus-feathers, of the wing, and the small under-coverts, pale rufous. The tail-feathers are blueish-green, tinged with yellow, the long tips of the two middle feathers and shafts are black; on the under surface the tail is pale grey, the shaft whitish. The iris is carmine-red, and the legs and feet are pale reddish-brown; the claws are dusky.

The young males are more dull in colour, the chesnut-tint paler; the black band about the throat greenish, and the middle tail-feathers extend but little beyond the rest; the iris is rose-red.

The adult females have the colours more intermixed and confused, they are duller in tint, and the central tail-feathers are two lines shorter than in the male.

The full grown Bee-eater measures, from the tip of the beak to the extremity of the middle tail-feathers, ten inches and a half, and the expanse is above eighteen inches; the length of the wing, from the carpal joint to the tip, is full six inches, and the wings, when closed, reach to within one fourth of its length. The quill-feathers are very narrow and pointed, and have very strong and stiff shafts; the first quill-feather is exceedingly small, the second is the longest in the wing.

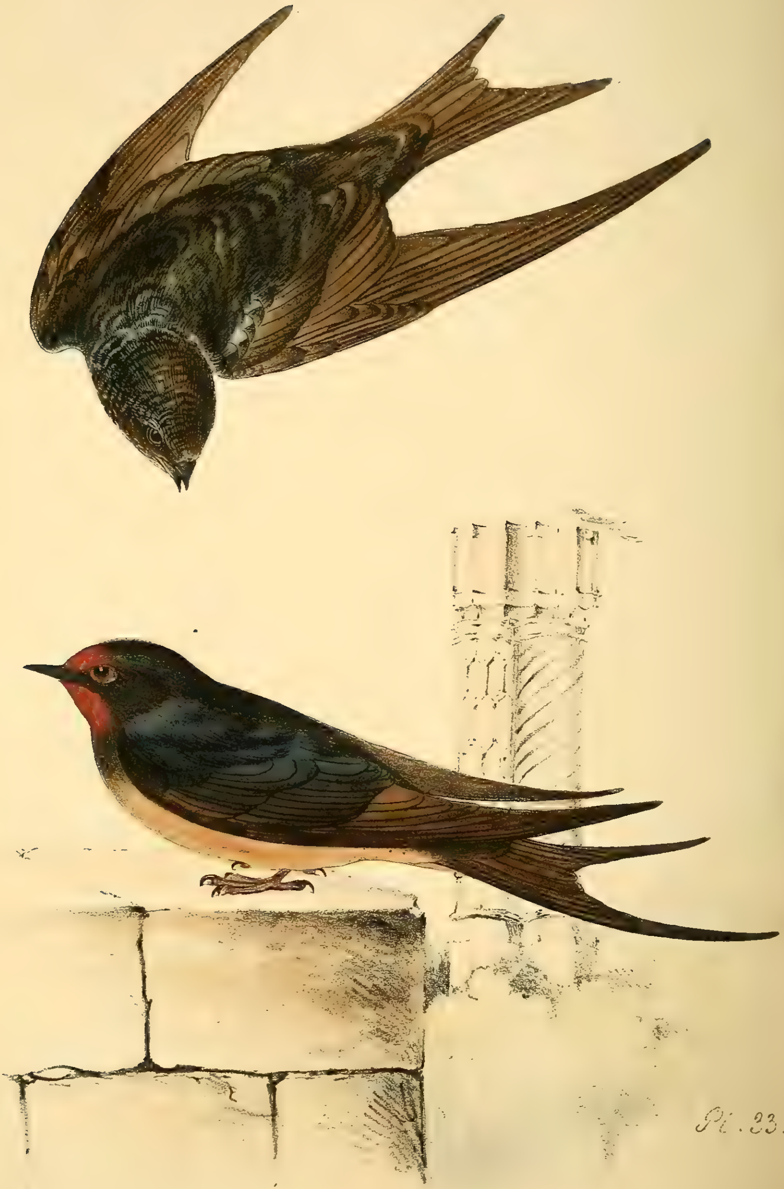
The tail feathers are twelve in number, and of equal length, except the two central ones, which extend in adult birds one inch beyond the rest. The beak is very hard in texture, an inch and a half in length, and perfectly black; it is five lines in height at the base, and five and a half lines wide; it is gently curved, sharp-pointed, and rather compressed; the upper mandible has a strong blunt ridge, and is a trifle larger than the under-one, the edges of both very little indented and fitting very close; the inside is also black, and strengthened with three ridges extending from the base to the tip. Nostrils, which are small, are placed close to the forehead; they are round, and partly covered with stiff bristling feathers; behind the eye is a small naked brown patch. The legs and feet are very short, and naked for nearly half an inch below the knee; they are finely scaled behind, and very strongly in front. The upper surface of the toes is scutellated. The small hind toe is very broad at the sole, the three front toes are connected together, in the manner of the kingfishers; the tarsus measures from six to seven lines, the middle toe ten lines, including the claw, which is four lines, the outer eight and a half, and the hinder six.

The localities most frequented by the Bee-eater are the precipitous banks of rivers among which they breed; they also resort to vineyards and valleys that are full of flowering plants, as in such places their favourite food abounds. In the warm parts of Asia and Africa these birds are very common, and are to be seen skimming about in thousands. Many parts of Europe are also frequented by them, although not in so great abundance. They are found in France, Switzerland, and Germany in small numbers; in Italy, Sicily, and Spain they are more frequent, and also in Turkey and the Grecian Archipelago. These countries are their summer residence, and in winter they retire further to the south, and seek refuge in the warmer climates of Africa.

The Bee-eater is entirely insectivorous; its food consists of the bee and wasp tribes, of beetles, grasshoppers, gnats, &c. In Italy these birds are esteemed good eating, and are caught and sold in the markets as an article of food.

The rarity of the Bee-eater in this country renders it but little known, except as a cabinet specimen, but even in this state the beauty of its plumage is very considerable, how much more splendid must be its appearance in a natural state, when the rays of the sun shine upon its brilliant plumage? Where they are indigenous, these beautiful birds are to be seen flying about the whole day as numerous as the swallows in our own country, pursuing the chase for food, which they also, in common with their tribe, take upon the wing. In their manner of breeding, these birds resemble the sand-martins, and for this purpose choose similar situations, namely, sandy banks by the river side. They associate together in great numbers at this season, and form their excavations so close together in the bank chosen for this purpose, that it has the appearance of a honey-comb. These perforations are effected by means of their arched beaks and hand-like feet, with which they scoop out circular passages, from three to six feet in depth, of sufficient size to admit their body, along which their short legs enable them to run with facility. At the end of this passage, a larger excavation is made, somewhat resembling an oven. In this dormitory, a slight nest is arranged of moss and other soft materials, on which, in the month of May, the female deposits five or six white eggs.

Their note, which they utter on the wing, is loud, and sounds like the syllables *grillgririririll!* and also *sisicrewee!* according to the testimony of an old and learned author.



Pl. 33.

PLATE XXXIII.

SWALLOW.

HIRUNDO RUSTICA. (*Linn.*)

EARLY in April, if the weather is warm, and the wind favourable, a few swallows begin to make their appearance, the precursors of the multitudes that annually repair to these shores from their winter sojourn in warmer latitudes.

The first appearance of these interesting birds is always hailed with pleasure by all who love the pleasant sounds and sights of nature, for they bring with them thoughts of summer.

Although arriving in large flights upon our coasts, they afterwards disperse and penetrate by degrees further into the country; a few alone at first are seen among us, coursing in their never-ending chase for food; by degrees their numbers thicken, until the air is again peopled by this interesting race.

The Swallow always makes friends among us; its useful and harmless life and social habits attract our notice, and its familiar approaches to our dwellings make it looked upon as half domesticated; it lives among us, yet independent, requiring of us nothing but quiet possession of its accustomed nook or chimney. The Swallow is almost as much respected and cherished as the redbreast himself, and shares, with that favoured bird, exemption even from the persecution of village boys, who, apt enough to throw the ready stone at every other of the feathered tribe, pause and desist in favour of the Swallow. This favourable prejudice is also in some degree extended to the house-martin; we remember to have had some difficulty in obtaining specimens of the eggs of this latter species in consequence of the prevailing opinion that it was ill-luck to take them.

About a month after their arrival in this country, Swallows may be seen gathering from the edges of pools and streams the materials of which to form their nests. These consist of little clods of loamy earth, with which their cup-shaped nest is constructed, intermixed with straws or grasses, and warmly lined with feathers. The situation chosen for the nest varies greatly; with us it is most commonly placed in a chimney, a little way down the shaft, as the warmth of such a locality is agreeable to them. Sometimes it is constructed in a cleft of a rock, or beneath the arch of a bridge, or in any similar situation of equal shelter and convenience. Four or five is the usual number of their eggs; they are white, speckled with dark-brown, grey, and rufous, mostly resembling the one represented in our plate (fig. 33). The young birds, as soon as fledged, may be seen sitting in a row upon the edge of their chimney, waiting to receive their food from their parents. Even after they can fly this parental care is still continued, and the young are often seen receiving food from the parent birds as they pass upon the wing.

These indefatigable birds appear to take no rest, and to require none, and probably remain the greater portion of our summer days upon the wing, alighting only now and then upon some elevated spot, such as a roof or chimney, and almost instantly resuming their accustomed flight.

How much a summer-scene is enlivened by the swallow! although he adds little to the *voice* of nature, and therefore gladdens our oral sense less than the unseen little warblers that, hidden within the covert of a neighbouring bush, pour out their liquid melody on the ear; yet these delight the eye by their ever-glancing flight, passing and repassing us with noiseless wing; sometimes dipping their glossy wings into the stream, or sweeping an insect from its surface, then, shooting past us quicker than the eye can follow, they turn and wheel as if delighting to evade our eager sight.

We always miss these active little birds, and feel, when they have departed from us, an autumn scene is blank and cold without them.

The rich and glossy colouring that distinguishes the Swallow from the other species of British *hirundinidæ*, is seldom to be perceived unless the bird is taken in the hand, or the spectator be so favourably placed upon a bridge or cliff that he can look down upon it as it skims beneath him; then, if the sun shines upon its glossy plumage, the vivid violet reflections upon the feathers of the back and scapulars may be plainly seen.

When the time for their annual autumnal migrations arrives, these birds collect in large companies of many hundreds, in anticipation of their approaching journey. We have known them for many years to collect in this manner on a particular house during several successive mornings, twittering and chirping as if arranging their course, ascertaining their geographical position, or settling the particulars of their journey; after a few days thus spent, they have suddenly departed.

The house so long selected for the place of rendezvous by the Swallows of this district, is situated on the southern outskirts of the town, and about nine miles from the nearest sea-coast, the coast of Suffolk. Whether these birds take their flight direct from this spot for their winter quarters in warmer latitudes, or whether they pursue their tour by easy journeys towards the southern coast, we have no means of ascertaining; but in all probability the former is the case, as the great power of wing possessed by this species would enable them, without fatigue, to reach beyond the limits of the island long before the setting of the sun.

In their pursuit of insects the Swallow may frequently be seen flying along the ceiling or roof of large buildings, such as churches, &c.; or along walls and palings for the purpose of rousing up any winged insects that may be at rest upon them, which they are then able to capture. In heavy weather, or previously to rain, when the air is chilled, Swallows may be seen to abandon the upper strata of air, and to fly near the ground, as at such times the insects that constitute their food do not ascend; a continuance of wet weather is also hurtful and sometimes fatal to them. At such times they are compelled to resort, in search of food, to the shelter afforded by avenues of trees or overhanging cliffs, or they are seen to pursue their prey low along the surface of the water, where it is sheltered from the inclemency of the weather by the river's bank.

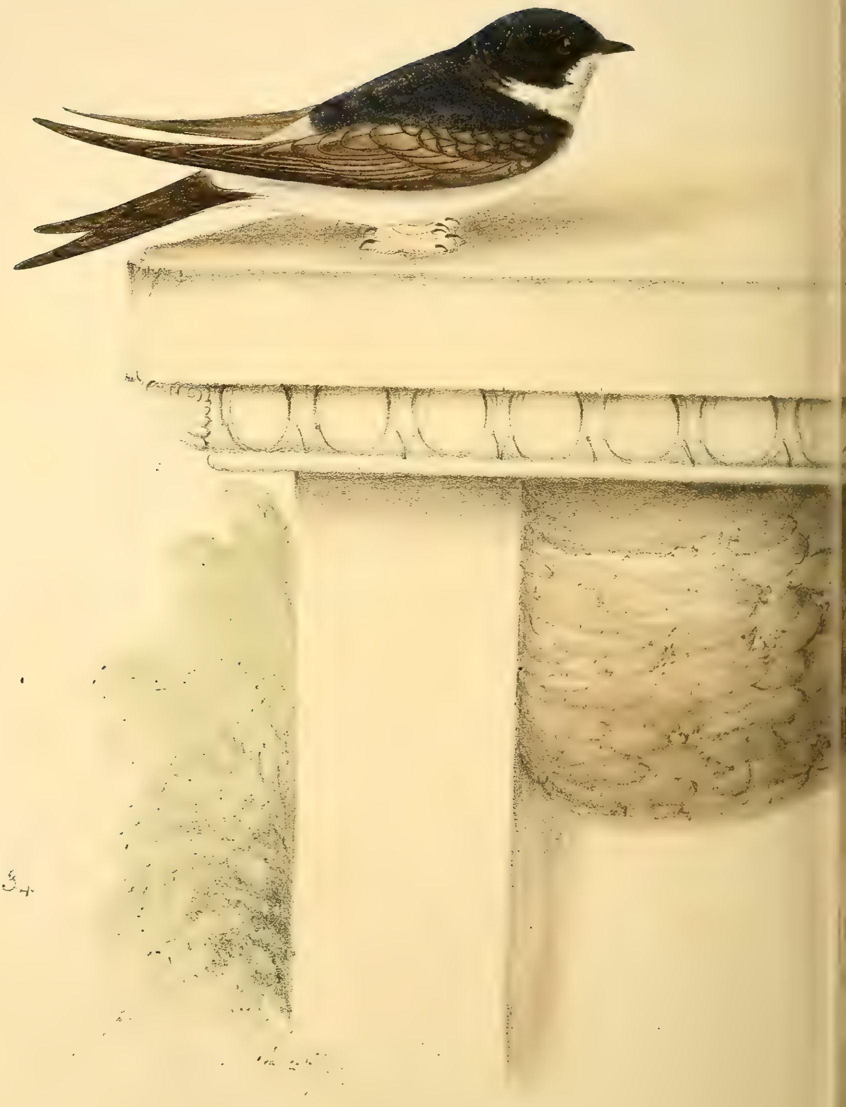
The Chimney Swallow measures about eight inches and three quarters in length, from the tip of the beak to the extremity of the tail, and fourteen inches in width from wing to wing. The wing from the carpus to the tip is five inches long, the larger quill-feathers are particularly strong, and the shafts are powerful and arched, the secondaries are very short with slanting tips. The tail is much forked, the middle feathers measure one inch and seven-eighths, the outer frame four inches and three quarters to five inches in length; the wings when at rest reach to about the middle of the tail. The beak is small, three eighths of an inch long, slightly curved at the tip, and pointed, and four lines in breadth at the base, and one line and a half high; the gape extends to beneath the eyes, and is more than half an inch in width; the nostrils are small and oval-shaped. The colour of the beak is black, the tongue and inside of the mouth flesh-coloured, and the iris is dark chesnut. The small slender legs and feet are entirely bare of feathers, their upper surface covered with small scales, and the claws are weak, thin, and pointed; the legs are reddish grey, the claws almost black, and the soles of the feet grey; the tarsus is five and a half lines long, the middle toe and claw seven and a half lines, and the hinder toe and claw five lines. The forehead and throat are reddish-brown; the space between the beak and eye and the region of the eyes are black. The head, cheeks, and neck, as far as the breast, the back, shoulders, and lesser wing coverts, are deep black, with blue and violet reflections. The wing and tail-feathers black, with bronze reflections and pale brown edges, particularly towards the tips of the feathers. The middle tail-feathers are entirely black, the others have a round white spot on their inner web towards the tips; these spots increase in length as they approach the outer feathers, and form a bar of white when the tail is spread out, but when closed they are not perceptible. The breast, belly, and all the under parts to the tail are white, more or less tinged with rufous, which colour is strongest on the under wing-coverts, and terminates on the edge of the wing in a border of black, brown, and white. The wing and tail-feathers are dull black on the under surface; the white spots on the tail-feathers shine through and appear like a band or chain of spots. All the feathers of the back which reflect the blue tint are black only on their tips and white towards the root, and it is in consequence of this that the bird seems to have white spots all over its body when the feathers are ruffled or displaced. There is very little difference in the plumage between the male and female; but, when compared together, the female appears the smallest on account of her shorter tail-feathers, the red-brown on the forehead does not extend so far, the black about the front of the neck is not so broad, and the rufous on the under parts much lighter.

On the return of the Swallows to us, in the spring of the year, the feathering is quite perfect, in consequence of their having moulted in warmer climates during the months of January and February.

The young birds, which are sparingly covered with a grey down in the nest, soon obtain the feathering of the adult, but they are entirely without the reflected colours, and the feathers lie less close. The upper parts are dull black with bronze-green reflections; the red-brown on the forehead and throat are much paler and dirty-coloured. The outer tail-feathers are considerably shorter and frequently differ as much as an inch and a half: the corners of the mouth are dull yellow, the iris brown, the legs reddish black, the soles of the feet grey.

The lower figure in our plate represents the adult bird, the upper figure the young.

Some remarkable varieties have been found of the Swallow, such as pied black and white; perfectly white, which are the most rare: yellow or dirty white, which have an indication of red brown on the head and chin; a silver grey one has been seen, with the same red on the head and throat; and cream-coloured varieties have also been met with.



Pl. 34

PLATE XXXIV.

MARTIN.

HIRUNDO URBICA. (*Linn.*)

THE principal distinguishing marks of this bird are as follow: — the whole of the upper parts are glossy black beneath, and on the rump perfectly white; the legs and toes feathered all the way down, and white. These particulars are sufficient at the most hurried glance to decide its proper name.

The Martin is smaller than the swallow, owing, in a great measure, to its shorter tail; its head is bigger than that of the former. In length, this bird measures five inches, and twelve inches in expanse; the length of the outer feathers of the tail is two inches and five-eighths, the middle feathers do not exceed one inch and three quarters. The wings, when at rest, reach almost to the extremity of the tail, and measure, from carpus to tip, four inches seven lines. The beak is three lines from the forehead to the tip, and broader at the base than long, one line and a half in height, blunt at the tip, and a little arched on the upper mandible; black inside and out, with the exception of the wide swallow, which is pale yellowish-red at the back; the nostrils are small and round, and are placed very near the base; the iris is dark-brown. The legs are short and weak, flesh-coloured, and covered with small white feathers, as well as the upper surface of the toes; the soles of the feet are also flesh-coloured, the claws have dusky tips, are long and very sharp, but not much hooked. The tarsi measure five lines and a half, the middle toe, including the claw, seven lines, and the hinder toe and claw, four lines and a half; the outer and middle toes are connected up to the first joint.

The hollow regions of the eyes, and the space between them and the beak, are velvet black; the top of the head, nape, back, shoulders, and the upper tail-coverts are deep black, with steel blue reflections. The wings and tail dull-black, with bronze-green-coloured reflections on the smaller feathers, and the three latter short quill-feathers have generally a narrow white edge near the tip; the edge of the wing is dusky and white, scolloped or scaled, the under wing-coverts brownish-grey, or pale-grey. The rump and all the under parts are white, although some few specimens have grey shafts to the under tail-coverts, or two black spots on the tips of the feathers. The under parts of the wings and tail are glossy blackish-grey, and the shafts of the larger feathers greyish-white.

There is hardly any difference in the outward appearance of the sexes; in some instances the male is a little larger than the female, his feathers are more glossy on the upper parts, and the white on all the under parts is more pure; but these differences are so very little that the question cannot be decided but by dissection.

The young Martins of the first summer much resemble the adult birds, but the upper feathering is paler, the gloss on the head is wanting, the tertials are distinctly bordered with white, the chin and throat, the rump and under parts are also frequently tinged with red, or spotted with grey; the lower part of the beak is dirty flesh-coloured, the corners of the mouth and eyelids, yellow, and the feet are very thinly feathered with down.

The young male and female are perfectly alike.

Varieties of this species are not uncommon; the white are the most beautiful, with red or amber-coloured iris; some are pied, with white wings and tail, or white heads. The variety in which all the black is dirty or brownish white, and the remainder, as usual, pure white, is very handsome, but must not be mistaken for the bird of the same name (*H. U. pallida*) of Latham and Bechstein, which differs in many respects.

The Martin is distributed over all the countries inhabited by the swallow, and goes further north even than that species. During the summer this bird frequents our country, arriving as soon as the spring is sufficiently advanced, towards the end of April or beginning of May, and generally after the swallows have made their appearance. A few forerunners are, by chance, seen earlier, but the great flocks do not generally come before the month of May. Their departure commences usually in September, and takes place a few days before that of the swallows; they fly, it is said, by night, and travel in flocks at a great height. These birds are remarked to congregate in large numbers together some days before they take their departure; and, after settling on some raised object early in the morning, and basking in the sun, they start off repeatedly as if by a given signal, and return again and again with great clamouring; it almost seems as if they practise their mode of travelling, and train themselves for their journey. During these manœuvres, they mount quickly to a great height, and the same minute descend again with such velocity that the noise occasioned by their wings may be heard very plainly. It has been said that Martins prefer towns to country places, but we cannot agree in that supposition, as there must be more insects in the sweet air of the country than in smoky towns.

The flight of the Martin is not so quick as that of the swallow. When a bird of prey approaches the swallows and Martins flock together, but, as soon as the danger is past, the species separate again.

During the breeding time Martins frequently quarrel, and the victor either drives his antagonist out of the nest, for the possession of which the dispute has arisen, or he pulls him out of it by the head, in which act they mostly fall together to the ground.

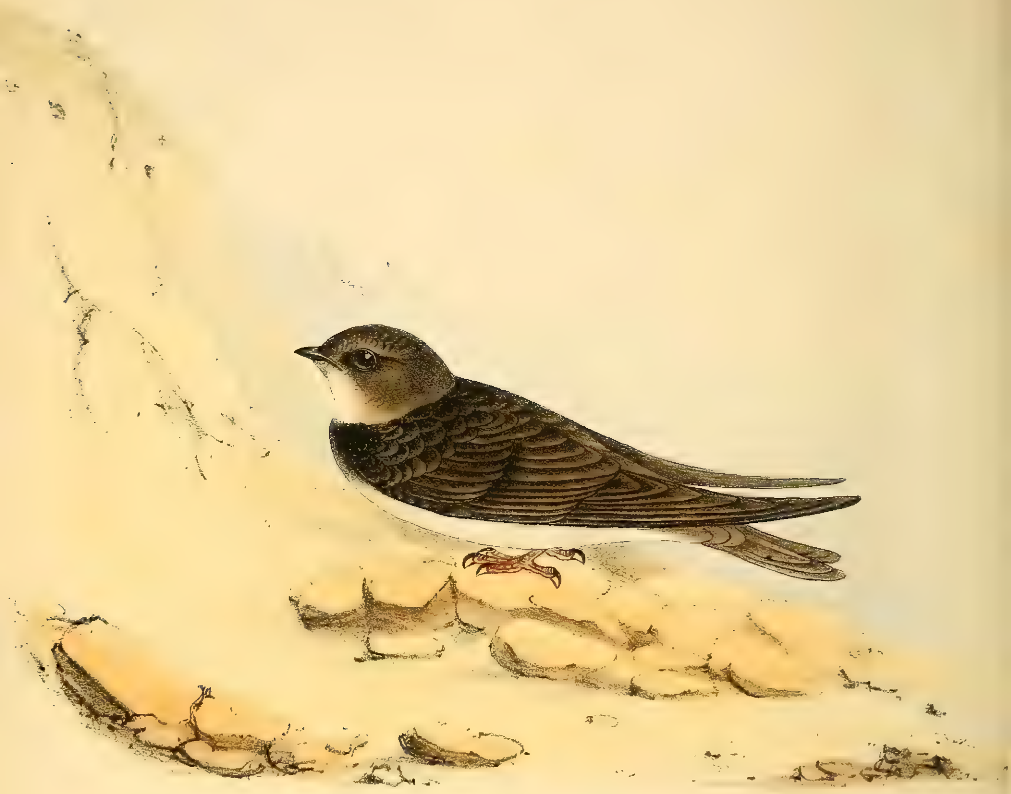
Martins are seldom seen to perch upon the ground, the construction of their feet is more adapted for holding fast, or when in a vertical position, in constructing their nests, &c.

The call-notes of the Martins are various, but hardly possible to be described in words or letters; *skirr*, *sreeb*, *stræ*, &c. are among them: the young birds call the word *brid* while in the nest but very faintly, and the song with which the male bird tries to amuse his wife while in the nest is a never-ending chattering, by no means pleasing. The social disposition of the Martin is very remarkable; they seem to entertain no fear for man: in proof of which the following fact was communicated to us by a friend. A pair of Martins chose for their breeding-place a sheltered corner in a projecting window shade, such as are seen in Venetian pictures; here their plastered nest was built, and their young, four in number, reared, regardless of any interruption from the inhabitants of the room, although they were within the reach of them, and constantly within their sight. The young birds, when strong enough to leave the nest, sat upon the bar within the frame until tempted by the parent birds to fly. In the course of the autumn the shade or frame, being a moveable one, was taken down as usual, and carefully laid away, in order that the nest might be preserved. On the following spring the shade, still containing the nest, was replaced above the window, in the hope that the Martins might return and resume possession of it. They did return, and paid it several visits, but, for reasons known only to themselves, they finally abandoned it.

We have often observed that Martins appear very whimsical in their choice of a nesting-place, beginning and abandoning sometimes many nests before a site is determined upon. This occurred on our own house during the past summer: many nests were commenced, and the little builders were seen from time to time bringing materials gathered from the borders of the Thames, plastering a layer with their little beaks, which they use in the manner of a builder's trowel; many were thus commenced, but not one carried to its completion, and all were at last forsaken. They had met with no molestation, as, on the contrary, we were anxious to protect them, and we could only conclude that the situation being much exposed both to sun and wind, the materials had dried too quickly to insure their tenacity: some fragments that fell from them on the window frame seemed to favour that opinion, as they crumbled to the touch; these fragments contained angular pieces of flint, but did not appear to have been cemented together by a saliva, as is usually supposed.

The size of the nest of the Martin is about six inches in diameter from side to side in the interior; the thickness of the wall of the construction is about half an inch on the sides, and about an inch at the bottom; the inner surface is smooth, but the outside knotted in consequence of the rough lumps of clay retaining their original form: the only lining these nurseries obtain is a few feathers to cover the bottom. The nest, when ready, not only serves the pair for the bed-room, but the birds continue to inhabit it during the whole breeding season. The female sits twelve or thirteen days upon her eggs, which are from four to six in number. During that time the male supplies her with food, except in wet weather, when the scarcity of the supply drives her out also for her own preservation. While the young birds are small, the parents both continue to pass the night in the nest.

The egg No. 34, belongs to this species.



Pl. 35

PLATE XXXV.

SAND-MARTIN.

Hirundo riparia. (*Linn.*)

The Sand-Martin is the smallest of the species that visit our country. Its entire length is from five and a quarter to five and a half inches, and its expanse twelve inches. Its wing measures four inches and a half in length; its first primary quill-feathers are rounded, and the succeeding ones pointed towards their extremities, the secondaries are notched, the tertials rounded. The tail is two inches one eighth in length, and the fork is half an inch in depth: the wings, when closed, reach beyond the extremity of the tail.

The beak is small, short, weak, and broad at the base, like the rest of its family, three lines in length and the same in width across the forehead, and one line in height; the nostrils are very small, the iris very dark chesnut, the beak black. The naked feet are small and tender, the claws middling in size, finely arched, extremely pointed, grooved beneath, and close above the hinder toe is a bunch of short and stiff grey feathers. The legs and feet are broadly scaled, their colour is a reddish-black, varying to yellowish-grey on the tarsi. The tarsus measures five lines, the middle toe six lines, including the claw, which is two and a half lines, the hinder toe five lines, of which the claw occupies one half.

The feathering of the Sand-Martin is dull and inconspicuous, the upper parts being mouse-colour, the wings and tail darker, the under parts snow white.

The more particular distribution of the colours is as follows: — the top of the head, back, shoulders, rump, temples, cheeks, sides of the breast and thighs, mouse-coloured; the sides of the throat the darkest, the forehead and rump the palest, the feathers of the first frequently with white edges; the throat, swallow, a patch on the sides of the neck, the breast, belly, and under tail-coverts pure white; on the chest, a pale grey band, and close beneath, a few grey spots; the feathers of the wings and tail are darker than the rest; the under parts of the wing deep mouse-colour; the wing and tail-feathers beneath are lighter than on the upper parts, and the shafts of the feathers are white.

The male and female are exactly alike in colouring, the female somewhat smaller. As these birds also moult during their absence from us in warmer climates, their plumage is the most perfect on their return here in the spring, and the whole of the feathering has the appearance of silk. During the summer the gloss becomes worn off, as well as the white edges of the feathers, and the general colour is paler and less pure.

The young Sand-Martins of the year, when they depart from us, differ in many respects from the adult; the grey is somewhat darker, approaching to dusky; on the head, back, and wing-coverts, the feathers are edged with dull rust-yellow, which is not unfrequently divided from the ground colour by a darker band; the tertials have the same borderings but broader; the throat is dashed with brown and rufous, very frequently spotted with grey. The legs are paler than in the adult, and without the little tufts above the hind toes. Varieties are seldom met with among the Sand-Martins, although they have occurred.

The Sand-Martin seems to frequent every country where the swallow and house-martin are known, and is also to be met with in North America: to give particular localities would, therefore, be an unnecessary repetition. They are delicate birds, and visit us only in the middle of summer, arriving in May, and departing in August or September. They are particularly attached to the neighbourhood of water, and are more partial to it than the foregoing, although we can mention several places where the Sand-Martin abounds where there is very little water. Sand-banks are their most frequented haunts, whether by the waterside or by the roadside.

The food of the Sand-Martin consists in flying insects of different sorts, chiefly such as undergo their changes in the water or in swampy places. Ephemera, gnats and their larvæ seem to be their chief food, and it appears to be in pursuit of the latter that they are seen, not unfrequently, to dip their heads into the water. They may be seen flying incessantly about for food, and, on account of their quick digestion, amply fulfil their duty of destroying the surplus of the smaller flying insects.

The places chosen by the Sand-Martins for breeding are the banks of rivers, cliffs by the road-side, sand-pits, &c., and they generally dig holes in the sand not far apart from each other, and may be said to belong to the sociable class of birds. When they have chosen the spot for the purpose above-named, they begin to excavate their holes in a horizontal direction, but sloping a little upwards, as they proceed; the opening is from two to two inches and a half wide, but becomes more roomy at the further end, for the accommodation of the nest and young family, and we have known some to be excavated nearly four feet deep into the bank.

How these little birds can possibly perform such hard labour in the short space of two or three days is most wonderful, and, considering their small beaks and tender feet, it can hardly be thought possible.

The nest is composed of hay and wool, feathers, &c., and is very warm and soft; the female deposits from five to six eggs, and hatches them after twelve or thirteen days' incubation; these eggs are extremely thin in the shell, transparent and tender; in fact, the least touch is sufficient to break them, and the yolk can plainly be seen through the shell. Both parents provide for their young until they can follow them in their vocation, which is very early accomplished, namely, in about fourteen days, but at night the whole family return home and sleep together.

In the month of August they begin their departure, and may be seen frequenting the water side in large numbers. These birds have only one brood in the summer, in which they differ from the preceding species, and they return occasionally to the same hole to breed; or, should the cliff in which it was formed have fallen away, they select another place as near to it as possible.

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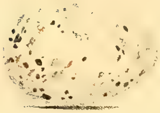

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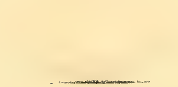

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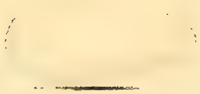

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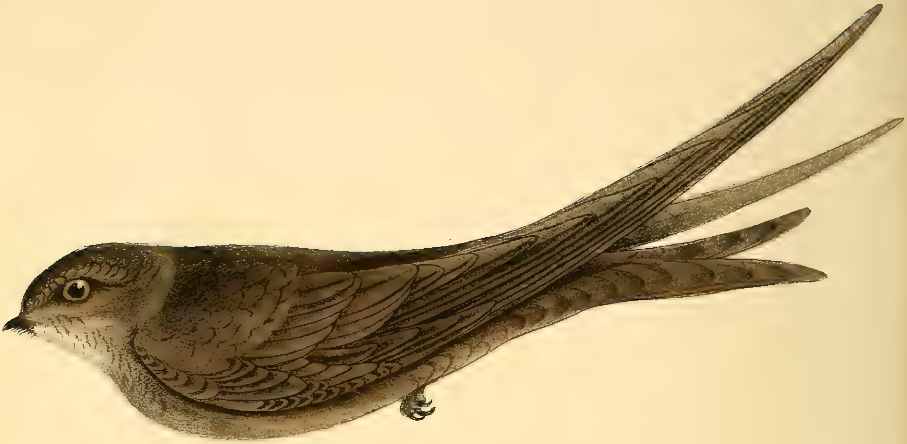


INSESSORES.
FISSIROSTRES. *HIRUNDINIDÆ.*

PLATE XXXVI.

SWIFT.

CYPSELUS MURARIUS. (*Mihi.*)

THE SWIFT inhabits the greater part of Europe, from north to south, Asia, Africa as far as the Cape, and is not uncommon in North America. The most northern latitudes are not frequented by this bird. With us it is a summer visitant, arriving in May and departing in August. In performing their migrations their flight is generally very high, and they travel in companies; they arrive as it were all in one night for their summer sojourn, and depart as suddenly in autumn; but a careful observer may detect their restless behaviour some days before they depart, and their chattering may also be heard louder when going to roost. During the winter the Swifts reside in very warm climates, but never in a hiding-place in Britain or the like unfriendly atmosphere, nor remain in any part of Europe.

The favourite haunts of the Swifts are towns, where there are lofty buildings, old fortresses or castles, church-steeples, &c.; and where such buildings or lofty trees do not exist, the number of Swifts is comparatively limited. For instance, in the immediate neighbourhood of Windsor Castle and Hampton Court Palace these birds abound to a much greater degree than in many other parts of the river Thames. Swifts pursue their insect food very frequently for hours over the surface of the water even after dark When satisfied, they return to their hiding-places in a hole in a rock or tree, or in the brickwork of an elevated building. Early in the morning they are again on the wing in pursuit of their daily food. The character of this bird is very restless, wild, and quarrelsome, as may be heard at night by their continual disputes in the air. At the breeding season also they always contest for the nest or hole, attack each other furiously, and sometimes fall together to the ground. These birds are, at the same time, hardly ever found nestling in a solitary place, but always, where others of its species breed, in neighbouring holes.

The power of flight in this species is very considerable, and greatly exceeds that of the swallow. They are all day incessantly on the wing, and fly at a wonderful speed; their appearance is very conspicuous, in consequence of their broad heads, long hinder parts, and wonderfully long and pointed wings, which almost form a semicircle when expanded. Their flight is also very beautiful, as they seem to sail on the air, with hardly any flapping of the wings, and thus wheeling in large circles, mounting higher and higher, so as to become lost to the eye. When they fly low, they flap their wings in quick succession, and with vibrating motion. It is hardly credible that after so much and continued exertion, so little sleep or rest can suffice the Swift, as it actually enjoys, but it is nevertheless the fact.

Strong as the Swifts seem in point of exertion, they are unable to endure cold or wet weather, which, if it lasts for some days, soon after the arrival of these birds, they become weak, and actually fall to the ground and die.

Its legs are neither fit for perching nor walking; the first is consequently reduced to an uncomfortable leaning, and the second a miserable crawl, which he only exhibits in his high and lofty lodgings; but for the purpose of hanging or clambering on perpendicular rocks or walls, &c., his short feet and four front or forward directed toes and hooked nails are exquisitely adapted; they enable him not only to remain in such a position for a length of time but even to sleep thus.

The call-note of the Swift is of two syllables, which can better be imagined than described, when we compare it with the filing or sharpening of a saw.

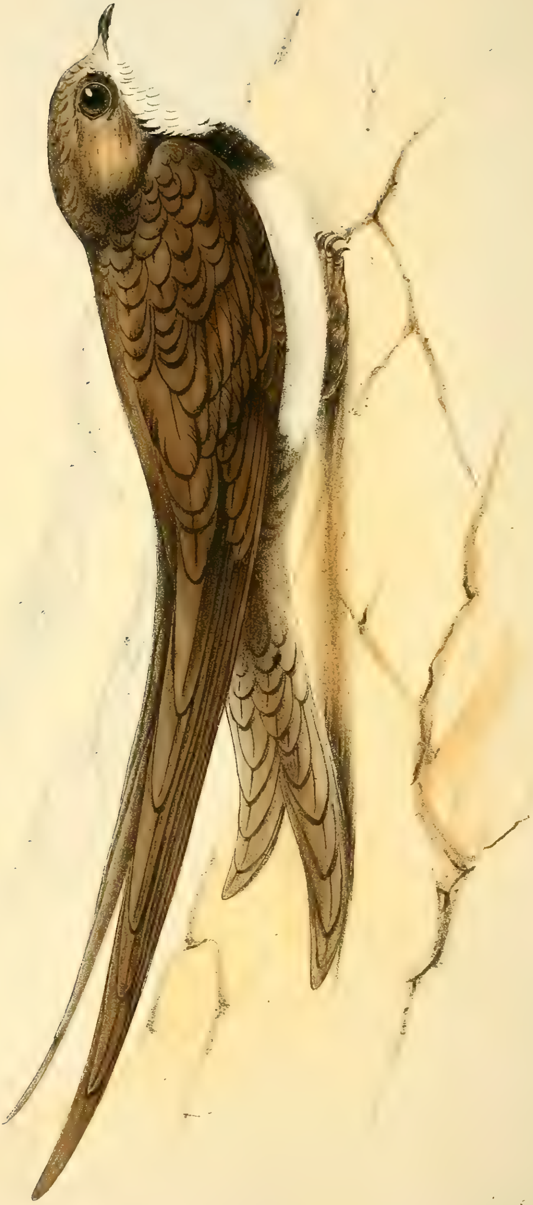
In consequence of the impossibility of this bird ever being able to enjoy a perch in a cage, it is very unlikely to become long an inhabitant of one.

The food of the Swift consists in all sorts of flies, beetles, butterflies, &c. &c., which he takes on the wing, and of which he consumes great numbers.

The undigested remains of the food which he swallows, are ejected by him in long pellets.

The breeding-places chosen by the Swifts are, as aforesaid, holes in lofty buildings, trees, rocks, &c., and these are furnished by both the male and female with straw, hay, threads, rags, dead leaves, feathers, &c., which the wind carries in the air, and which have been caught by them and carried to their home; these different materials are placed together and glued as it were with their sticky saliva, giving them an appearance as if snails had crawled over them, and covered them with their slime. It is hardly correct to give this irregular heap the name of a nest, as the surface is scarcely large enough to prevent the eggs from rolling off, and the young cannot find in it any warmth or softness. The female deposits two or three eggs, of the form and colour represented in our plate, No. 36, on which she sits for sixteen or seventeen days, during which time the male supplies her with food. The young remain long in the nest until quite fledged, and able to provide for themselves.

These birds often appear highly excited, probably before some atmospheric change, and, at such times, fly about with tumultuous and passionate eagerness, repeating their peculiar note. It appears probable that all the swallow tribe pair for life, as we may judge by their returning annually to the nest of former years, but the Swifts seem peculiarly attached to one another and are constantly seen to fly in couples. They are very irregular in their appearance, being some years seen in considerable numbers, and again become so scarce in the same locality, that hardly two pairs are seen together on the wing. More or less favourable seasons are probably the cause of these variations, especially, as before said, considering their great susceptibility of every atmospheric change. The entire length of the Swift is eight inches six lines, the wing from the carpus to the tip eight inches; the expanse from wing to wing, fifteen. The beak, from the tip to the gape, seven-eighths of an inch, and six-eighths from corner to corner of the mouth. Feet of four toes, all directed forward, the innermost, which is the smallest, reversible; the claws ivory-black, strong, and very sharp, the two middle ones three lines and a quarter in length. Tarsi very strong, seven lines in length, feathered on the upper surface, bare beneath, with a whitish-mealy skin; toes covered with a blackish skin, and two or three soft scales near the claws. The second quill-feather the largest, the first a little longer than the third; the chin pearl-white, marked down the centre of the feathers with dusky; the rest of the upper and under plumage, including the tail and tail-coverts sooty-brown, with brilliant reflections of pale yellow, green, and purple; wings and wing-coverts sepia, tinged with purple; tail forked.



INSESSORES.
FISSIROSTRES.

HIRUNDINIDÆ.

PLATE XXXVII.

ALPINE SWIFT.

CYPSELUS ALPINUS.

WE have the authority of naturalists of the present day to include the Alpine Swift among British birds, as it has been met with in three or four instances in this country; and our drawing, although not made from a British killed specimen, is the representation of a very handsome bird that was obligingly lent to us for the use of our work.

The winter retreat of the Alpine Swift is in the warmer climates of the globe, particularly Africa; during summer it visits the south of Europe, frequenting chiefly elevated parts, such as the rock of Gibraltar, the island of Malta, and some spots on the coast of the Mediterranean; inland, the southern Alps are its chief haunts during that period. Switzerland, Savoy, and the Tyrol, are, it seems, the most northern parts of Europe in which these birds are found in numbers, although a few penetrate still further. Under what circumstances the Alpine Swift has found its way to our shores, where it can only be looked upon as a very rare straggler, it is not difficult to imagine; probably a continuance of unusually warm weather has induced them to follow, as we have suggested in a former instance, a swarm of insects that were carried by some current of air before them.

The food of the Alpine Swift consists of insects which enliven the higher strata of our atmosphere, and which they take upon the wing as long as daylight lasts; as evening draws in they take a lower flight, in order to feed upon beetles, moths, and other night-flying insects. Their long and powerful wings not only help to sustain these birds with the greatest ease in the air, but their peculiar construction enables them to cut, as it were, through the currents of air which they must most naturally meet with during their flights, particularly among the chasms of rocks where the gales are of the most formidable description.

When the atmosphere is moist and cold, and there are no insects in the upper air sufficient for the support of these birds, they may, under such circumstances, be seen skimming in hurried flight over swamps, lakes, and ponds. Their flight is exceedingly quick and boisterous, and in their nature they are restless and turbulent, and very unsociable, except with their own families. It is very remarkable, that although these creatures are all day on the wing, their untiring energy should enable them to keep up their gambols until late at night, when they may be heard quarrelling together, and rushing through the valleys and along the streets of towns in pursuit of one another, for hours after it is dark; yet so little rest appears to suffice these birds, that among the earliest risers this Swift is usually the first. It seems as if the construction of the Swift is such as to enable it to float on the air in the same manner as the fish supports itself in the water.

The Alpine Swifts are seldom seen to alight upon the ground, and when they do so, the construction of their legs and feet not being adapted for walking and perching, they shuffle along and look very awkward, and the great length of their wings renders it very difficult for them to rise again. But when desiring to retain themselves in a hanging position, against a wall or perpendicular rock, they exhibit great facility in preserving their equilibrium. By means of their strong claws, they cling firmly on; and their tails serve them as a rudder or a rest, wherewith they balance themselves so as to be enabled to move the upper part of their body in any direction they may require. The position of the bird represented in our plate has been chosen for the purpose of elucidation.

In constructing their nests the Alpine Swifts make use of their power of clinging in the manner described, in order to place their nests in situations inaccessible to interruption. They choose for their breeding-places cracks and fissures in rocks, and holes in walls of lofty construction; and soon after their arrival in Europe either resort to an old habitation of their own, or select a new one, and begin to prepare the nest, which is composed of dried grass, straw, dead leaves, wool, and feathers, all heaped on one another without order or arrangement; and the whole is said to be glued together by means of saliva from the bird's mouth, which dries very fast, and gives it the appearance of having been varnished.

Towards the end of May, the female lays two or three singularly-shaped eggs, much resembling those of the Common Swift, but larger, which are hatched after fourteen days incubation. The young, when able to fly, follow the parent birds, but continue for some time to receive food from them on the wing Towards the end of August, young and old take their departure together, and disappear generally all in one night. Where these birds are plentiful they are caught for the table, their flesh being considered very excellent.

Their call-note is *skree, skree!* and resembles that of the Common Swift, but is more musical, and almost as strong as the cry of the kestril.

The measurements of the Alpine Swift are as follows:

length, from the beak to the end of the tail, about eight inches and a half; and from the beak to the extremity of the wings ten inches. Wing, from the carpus to the tip, eight inches and seven-eighths. The beak measures four lines from the forehead to the tip, and full ten lines from the tip to the gape.

The entire plumage of this bird is dusky, with exception of the chin, throat, and belly; the dusky band which crosses the breast is rather deeper in colour than the rest of the plumage, and the forehead and top of the head are tinged with grey. The whole feathering of the bird is of a very silky texture. The beak is black; the iris dusky.

In this species, as in the Common Swift, the principal length of the wing consists in the prolongation of the primary quill-feathers, which, together with the extreme shortness of the secondary and tertial feathers, gives that peculiarity of appearance which enables the most superficial observer to distinguish the Swift from all other birds when on the wing.

The outline head, fig. 37, is that of the Alpine Swift.

Figs. 36, represent the head of the Common Swift *(c. murarius)* in two points of view, all are of the natural size.

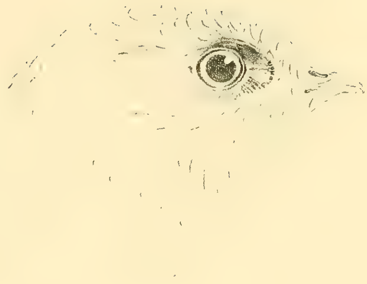


fig 36.

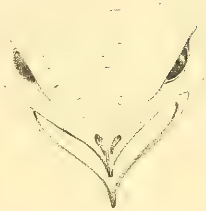
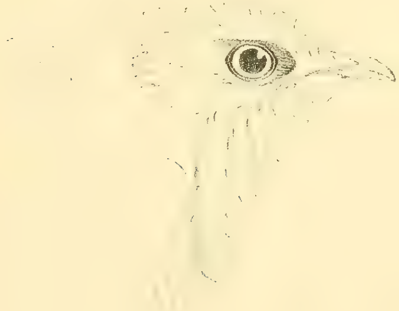


fig 36.



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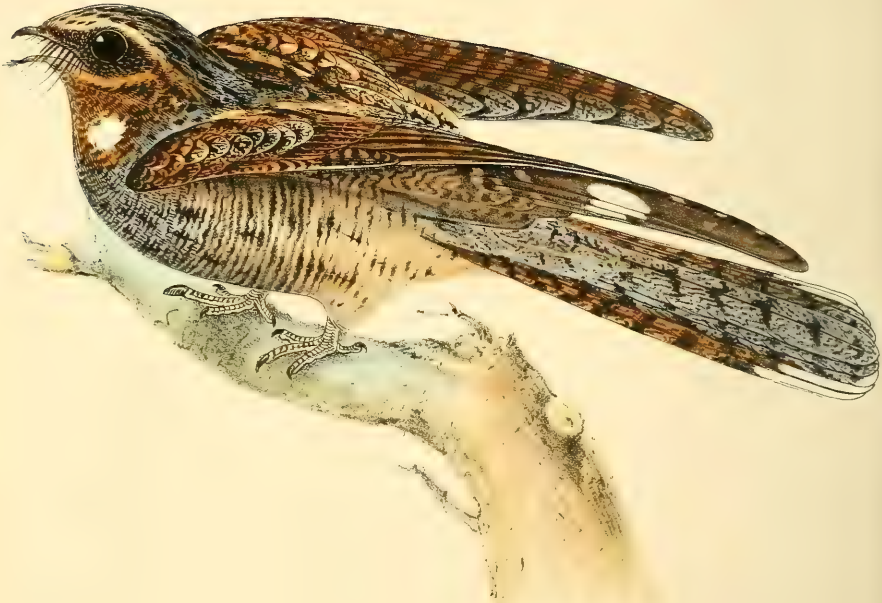


PLATE XXXVIII.

NIGHTJAR.

Caprimulgus Europæus.

Among the collection of live specimens of British birds that we have kept for the purpose of becoming more acquainted with their peculiar habits, we have several times attempted to rear this species with varied success: one pair of these beautiful birds we brought up from the nest; we kept them until they were full-grown, and in their full feathering; but when the cold weather set in, the kitchen fireside and a covering of flannel were not enough for them to thrive, the second and third frosty night putting an end to their existence.

Raw meat chopped very fine was their food, but they did not help themselves, and would not have lived so long if we had not paid great attention to their regular meals night and morning. During the whole day they sat or rather lay in a corner of their cage like an inanimate thing, although their splendid large eyes were wide open. The nestlings were brought by a lad upon whose testimony we could rely, who said they had been found on the ground among long grass, moss, and fern. Besides having had these birds alive in confinement, we had very frequently the pleasure of watching them in the open air in a wild state, in the uninclosed part of Claremont, among the different sorts of trees that grow in patches in that locality, consisting of oak, birch, and fir trees, scattered over heathy ground. We frequently went towards dusk in the months of June and July to enjoy the sight of their gambols and the music of their monotonous tune.

Their flight is more like that of a moth than of a bird, noiseless, except when they betray themselves by beating their wings together twice at a time and snapping with their beaks; the males have also a peculiar call-note, which they utter when perched in a tree. This whizzing call, which can only be described in the words *arerrrrrr*, *ærrrrrr!* and which is kept up for several minutes at a time, is by no means a guide by which their situation can be known, as they are enabled to modulate it at pleasure, and the nearer one comes to them, the further off the sound sometimes seems to be; they damp its utterance, by which method they deceive an unaccustomed ear very easily. Immediately before starting off from where they are perched, they stop their note short, and a moment after are on the wing, uttering the word *deck*, *deck!* apparently scared away.

We were listening one evening to the various calls uttered by these birds in a place replete with echoes, and were agreeably surprised to hear these sounds repeated by them at different distances; we imagined at first that the several calls proceeded from as many different birds, until the perfect regularity of the repetitions led us to detect the cause.

When in pursuit of their prey, which chiefly consists in moths and other nocturnal insects, we have seen them fly round and round a bush as a moth does round the flame of a candle, or like the swallows in sweeping rounds high and low, and falling over in the manner of tumbler pigeons, or rolling in the air like a ship at sea, or a kite in a changing wind. It is beautiful, indeed, to watch these birds, and easy to approach them very nearly, as they seem to take hardly any notice of an observer; and where they have a brood, the pair will fly so close, that the wind produced by the movement of their wings may be plainly felt.

The noiseless flight of owls is generally attributed, not only to the softness of their plumage, but to the serrated edges of the outer quill-feathers; the same observation may apply to the Nightjar, whose feathers are equally soft, and on being closely examined, show, on the first quill-feather, the same property in a slight degree.

About the middle of May these birds are paired, and without building a nest, the female deposits her two eggs, like the one represented in our plate, No. 38, on the bare ground by the side of an old stem or bush; heathy, dry, sandy, and hilly ground, and spots covered with fern, are the places the most likely to harbour the Nightjar.

Young birds, before they have any feathers about them, are covered with dark grey down on the upper parts, and pale on the under. Their first appearance is very extraordinary.

The use this bird is of to the cultivator of the soil is very considerable, in consequence of their destroying immense numbers of insects of the larger kind, such as cockchafers and large moths, the caterpillars of which are very injurious to forest and fruit-trees. The Nightjar belongs also to the dainties, provided one is able to take them about the time that these birds are on the move for their winter quarters; they are as fat as the land-rail and quail at that period.

The geographical range of the bird under present consideration is very extensive, being found in Europe, Asia, and Africa. In Europe it is found as far north as Norway, during the transient summer of that climate, and is well known in all the middle and southern parts; in Africa, it is equally common, and in Asia as far as the East Indies.

The constitution of this bird is very delicate, being unable to bear the cold or wet

The common specific name of Europæus indicates that it is the only one of its kind that is found in Europe, but there are several species that resemble it much, differing, however, very considerably in size and other respects, to be found in other parts of the globe. The bird that visits us during the summer months, retires to warmer climates for the winter, and takes its departure towards the end of September.

The entire length of the Nightjar is ten inches; from the carpus to the end of the wing seven inches and a quarter; the tail measures five inches and a half; the beak, to the feathers on the forehead, four lines, and to the gape an inch and a quarter; the upper mandible has an emargination or tooth on each side of the hooked tip. The nostrils are of a peculiar construction, consisting in tubes, similar in appearance to the nasal tubes of the petrel tribe; these, in the Nightjar, are fleshy, and capable of expansion and contraction. The vibrissæ, or bristles that fringe the upper mandible, are inserted deeply beneath the skin, and, being furnished with strong muscles, are capable of being moved forwards or sideways, and are supposed to assist in the capture or retension of their prey: these bristles are eight or nine in number, very strong at the root, and drawn gradually to an extremely fine point; in substance, they resemble whalebone.

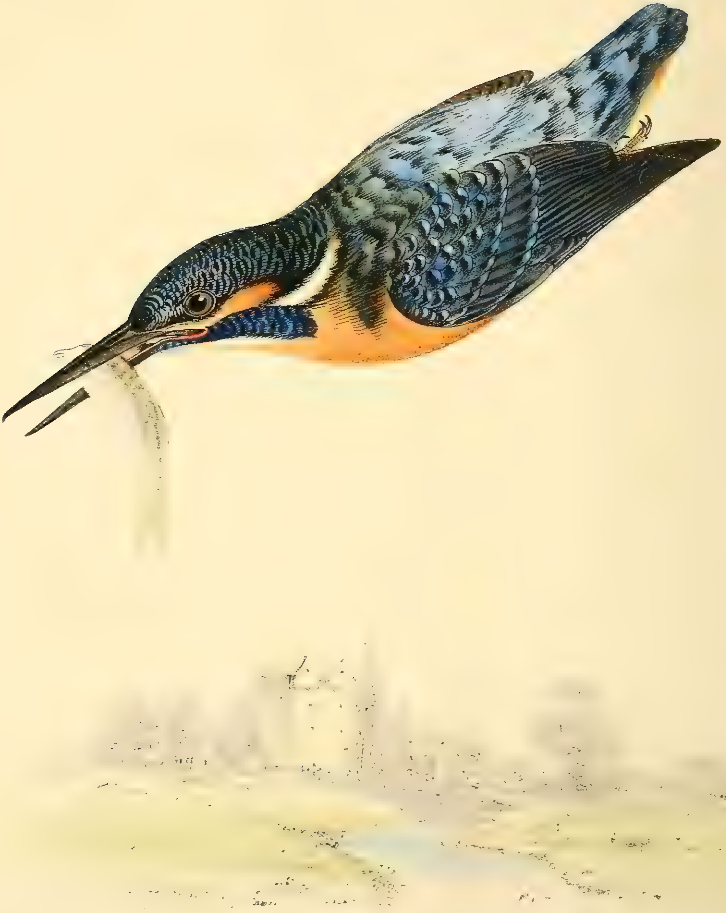
An outline of the skeleton head of this bird is subjoined, to show the number and position of the vibrissæ; it is represented of the natural size (see fig. 38).

The legs and toes are small in proportion to the size of the bird; the tarsus measures nine lines, is feathered on the front or upper side, and naked behind, showing the reticulated skin. The middle toe measures nine lines, and is connected with the outer and inner ones by webs reaching as far as the first joint; the outer and inner toes measure five lines; the hinder, which is reversible, not more than three. The nail of the middle toe, which is much longer than the rest, is furnished on the inner edge with a beautiful little comb, of the use of which various opinions have been given; we incline to the supposition that it is applied to the purpose of dressing the before-mentioned vibrissæ, as it appears from its structure more calculated for the service of the toilet than as a means of capturing or retaining their prey.

The plumage of the Nightjar is remarkably soft and silky, but the shafts of all the feathers, especially those of the wing and tail, are strong and firm. The tail, consisting of ten feathers, is nearly even at the end, and the feathers measure five and a half inches. The principal colours of the plumage are ochre, orange, brown, and grey, beautifully pencilled upon rich dark brown. The feathers of the head, nape, back, and scapulars are marked down the shafts of the feathers with a stripe of deep velvet black. The eyes are encircled with hairy feathers, mottled with orange and black; the same colours prevail upon the chin and throat, and extend backwards round the neck, forming a kind of collar. Along the lower mandible a white stripe passes to the back of the ear-coverts, and there is a white spot on each side of the throat.

The male is principally distinguished from the female in colouring by white spots, which occupy an inch of the tip of the two outer feathers of the tail, and a small portion of the inner web of the three first quill-feathers of the wing. In both sexes the under plumage is barred with orange, brown, and dusky transverse lines. The large and beautiful eyes are very dark in colour, and the eyelids black. The tip of the beak is dark horn-colour ; the inside of the mouth pale flesh-red. The feet are yellowish-brown.

The skeleton head, figure 38, is that of the Nightjar, and is represented the size of nature. The egg of this species is figured No. 38.



INSESSORES.
FISSIROSTRES. *HALCYONIDÆ.*

PLATE XXXIX.

KINGFISHER.

ALCEDO ISPIDA. (*Linn.*)

THE figure of this beautiful bird was taken from a living specimen that we had for some time in confinement, which was accustomed to feed itself with minnows and other small fish from a stone jar that stood on the table, and this feat was repeated many times in the day.

The Kingfisher surpasses all other British birds in the brilliancy and changeableness of its colouring, which varies with every change of position, from the most brilliant torquoise-blue to the warmest green in the lighter parts of its plumage, and in the darker reflecting copper and gold. In our plate we have chosen the blue appearance, as the most beautiful, and the one most frequently to be seen in its living state when on the wing, as it shoots across the observer's path like a bright stream of phosphoric light. In its green livery it is seldom seen in a wild state, unless when the light of the sun is reflected strongly from it, on account of its assimilation with the surrounding herbage. When dead, and preserved for a cabinet, its plumage has a dull blueish or muddy-green appearance, and the brilliant tints of life have vanished. In colouring this bird from the life, both in this and in the quarto edition, we have drawn upon ourselves the imputation of over-colouring our plate, but we believe that a careful comparison of it with a living bird would show that we have not overrated its splendour.

The Kingfisher is a well-known inhabitant of all the milder climates of Europe, wherever there is fresh water abounding with small fry, such as minnows, bleak, dace, small gudgeons, &c. In England, this species is indigenous, and may be met with at all times of the year, both in warm weather and during the severest frosts. It appears attached to particular localities, which it never deserts unless driven by want during a severe winter to seek for the more open springs that are usually to be found by the sea-side.

The Kingfisher is a solitary and unsociable bird, and will not permit the approach of an intruder of its own species within the haunts of its customary range or hunting-ground, but chases any that invade its privacy until driven from the spot; it is only on such occasions, or during the pairing season, that two of these birds can be seen flying together.

The favourite haunt of the Kingfisher is on the banks of a river, lake, or running stream, which is supplied with branches that overhang the water in such a manner as to enable the bird to sit and wait in that position for its prey to come within its sight and reach.

It is exceedingly interesting to watch the Kingfisher in the act of taking its prey. When on the watch for food, perched either on the branch of a tree, a stump, a post, or railing by the water-side, it may be seen from time to time plunging into the water, and almost instantaneously rising again with its beak foremost, holding between its mandibles a small fish, with which it returns to its former perch for the purpose of consuming it. This it effects by swallowing the fish entire with the head foremost, after having crushed and pinched it to death. When this is achieved, the bird returns again and again to the attack until satisfied.

We have also frequently seen this bird stationary on the wing, hovering over the water where there was a quantity of small fish, and plunging into the stream in the manner before described. They skim along the surface of the water at times chiefly towards the evening, which may be in search of water-insects for their young family, as they do so more during the summer months than at any other time.

About the middle of May the Kingfisher begins to seek a mate; as soon as his choice is made, the birds begin to dig a hole in a sand-bank about two inches in diameter, and sufficiently deep to prevent a man's arm reaching to the extremity; near the end of this excavation the female deposits five or six eggs. The young birds are fed with insects and half digested fish until they are strong enough to share the fare of the family.

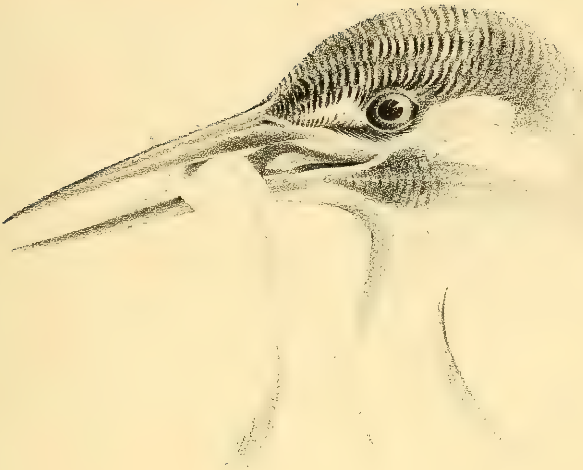
The Kingfisher, when flying along the surface of the water, may frequently be heard to utter a shrill piping call, which, although louder, much resembles that of the summer snipe.

The entire length of this bird is seven inches; the wing, from the carpus to the tip, measures three inches; the tail one inch and three quarters; the beak is an inch and a half long from the forehead to the tip, and two inches from the tip to the gape. The tarsus measures three lines, the middle toe and claw nine lines, the inner and hinder toes alike four and a half lines; the claws are much arched and very sharp. The feet are formed for grasping like the human hand. The eyes, which are large for the size of the bird, are oval as well as the pupil, and directed forward doubtlessly for the purpose of aiding the bird to discern its food in the liquid element.

The forehead, top of the head, nape, tippet, and wing, coverts are rich reflecting greenish blue, which colour is continued on the outer webs of the quill-feathers, secondaries, and scapulars; from the base of the under mandible the same colour is continued along the sides of the neck. The tip of each of the feathers upon the head and wing-coverts has a metallic blue spot on the extremity of the shaft, which adds to the splendour of the feathering.

The chin and throat are pure white, and a band of the same colour extends backwards from the ear towards the nape of the neck. Between the upper mandible and the eye is a rich chestnut spot, continued below the eye as far as the ear; this chestnut band is interrupted by a small white spot before the eye, and a line of small close-set bristles, round from the nostril below the eyelid as far as the lore behind the eye. The corner of the mouth on the under mandible is bright red lead, and the short broad tongue is of the same colour. The breast and all the under parts, including the under tail-coverts, are orange chestnut. The back, rump, and upper tail-coverts are perfect mineral blue, which changes colour according to the light. The tail feathers are Prussian-blue with dusky shafts. The shafts and all the inner webs of the quill-feathers being dusky with paler edges, give rise to the supposition of their having copper or gold tints reflected.

The outlines figured 39, represent the head and foot of the Kingfisher in the natural size. The egg No. 39, also belongs to this species.



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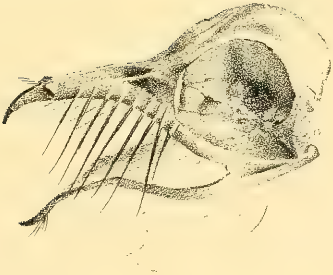

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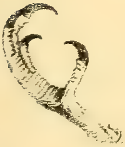

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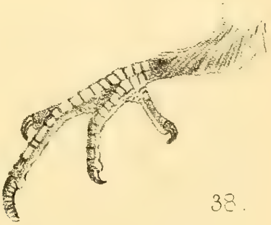

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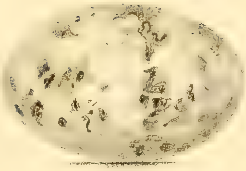

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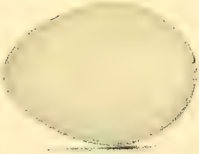

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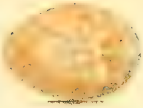

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ORDER. INSESSORES.

DENTIROSTRES.

The members of this division of the Insessores, or perching birds, are distinguished by an emargination of one or both mandibles, near the tip of the bill, answering to the tooth or festoon, that is to be observed, more or less, among the different divisions of the Raptores: this emargination, although in few sufficiently developed as to serve the purpose of tearing in pieces their prey, enables them to hold it with firmness and security. This is more distinctly prominent in the *Laniadæ* than in any other families of the tribe, and the habits of the shrikes, and the food sought by them, bear, consequently, more analogy to those of the Raptorial order.

The bill, in some of the Dentirostres, is lengthened, so as to defend the face from being injured by the struggles of their prey; in others, where the bill is short and broad, stiff bristles or hairs answer equally the purpose of defence. Five natural families are included in this tribe, as spoken of by Selby, to whom we are indebted for the substance of the above remarks, as well as for the generic characters mentioned below, under the names of *Todidæ* or *Muscicapidæ*, *Laniadæ*, *Merulidæ*, *Sylviadæ*, and *Ampelidæ*. The food of this tribe is various; that of the two first consisting almost exclusively of insects and animal matter; that of the two next comprises insects, fruits, and berries; while in the *Ampelidæ*, which are, with the exception of one species, inhabitants of the New World, vegetable productions form the chief nutriment.

In the first of these families the bill is broad, emarginated, and depressed at the base, which is beset with projecting bristles; the legs are short and weak, the feet calculated for perching. Their food consists of insects. Of the various forms contained in this family, we only possess representatives of a single group, the *Muscicapa* of authors, of which the following are generic characters :—

"Bill rather short, sub-triangular, depressed at the base, strong, and compressed towards the tip, which is deflected, and with both mandibles emarginated. Base of the bill beset with long stiff bristles. Nostrils basal, oval, and lateral, partly concealed by the feathers at the base of the bill. Feet having the tarsus as long as, or rather longer than the middle toe; toes, three before and one behind, the side ones of equal length, the outer one joined at its base to the middle toe. Wings, having the first quill very short, the second shorter than the third and fourth, which are the longest in each wing."—SELBY.

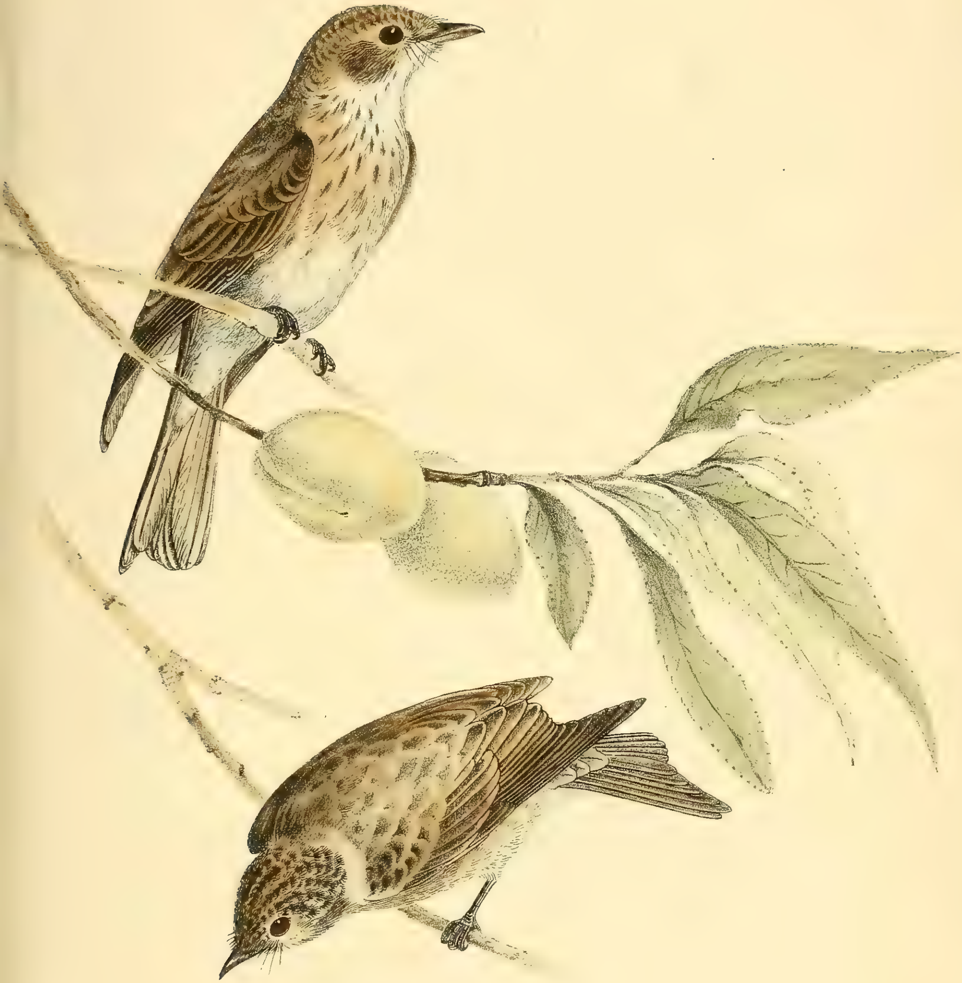
INSESSORES.
DENTIROSTRES. *MUSCICAPIDÆ.*

PLATE XL.

SPOTTED FLY-CATCHER.

MUSCICAPA GRISOLA. (*Linn.*)

OF the *Muscicapidæ* two species only are at present recognized as visiting Britain, the Spotted Fly-catcher and the Pied. Some few other species of the same genus visit



Pl. 30.

other parts of Europe during summer only, and retire to warmer regions for their winter retreat. They are entirely confined to the Old World; other divisions of the *Dentirostres* filling their place in the new.

The Spotted Fly-catcher is readily distinguished from other little birds by its peculiar manners, and, when once pointed out, cannot be again mistaken. It sits, when on the watch for food, in the outer spray of a tree, or more commonly on a wall, or on the top of the palings of a park, and every now and then descends from its station upon a passing insect, and then regains its former place; if followed, it flits along before its pursuer, alighting again and again on the wall or palings a little way in advance of him, and often admitting of a very near approach.

It is one of the least shy of our summer birds, and builds commonly in gardens, in situations similar to those chosen by the redbreast, and on the walls of houses where fruit-trees, or other climbing shrubs, are trained, placing its mossy nest in an angle formed by the branches.

Fly-catchers are said to rear but one brood in the year, which is very probably the truth, as their arrival in England is later than that of most summer migrants; but we have known an instance, where the first nest and eggs had been taken away, of a second and a third being placed in the same locality, where a brick had been displaced in an old wall. They are believed, also, to return to the same spot for incubation year after year, provided the locality is a permanent one, such as the place just mentioned. The Spotted Fly-catcher, although the most silent of our summer visitors, is not one of the least interesting. It makes its appearance in England the middle or latter part of May, and young broods are fledged about the middle of the succeeding month. Three young Fly-catchers were brought us, which had been taken from a nest in an adjoining garden; we placed them in a large cage, in which were several other little birds of different species; their entrance was immediately hailed with great delight by a robin, who, with many lively attitudes and gestures, uttered frequently his note of surprise *crackrrrack!* The little Fly-catchers, which were still in the plumage of young nestlings, namely, mottled with grey, white, and brown, and tail-less, mounted themselves on one of the uppermost perches, where they sat quietly side by side.

After they had been some time in the cage, a sudden stir was observed among them, and a bird hastily entered the window near which the cage was placed, alighted upon it, and as hastily retreated. In the course of a few minutes this was repeated, and it proved to be one of the parent birds, whose affection had traced the little ones to their place of imprisonment, and who was now supplying them with food. We were highly delighted at this circumstance, as it promised a supply of proper food for the nestlings, such as we could not ourselves have provided. We had now only to take the precaution of having the window constantly open during the day to admit the visits of this interesting little creature, who continued, day after day, to supply the young ones with food, notwithstanding the interruptions that might be supposed to be caused by a large family passing continually in and out, as the cage stood in the drawing-room.

Apparently, the task of feeding the nestlings was performed by one alone, probably the female, as only one bird entered the room, while her mate, who accompanied her constantly in her flight, always waited for her outside the window, either upon the roof of the house or on a neighbouring tree. The young ones usually appeared aware of the approach of the parent, and were on the alert, and eager to receive the expected food, some seconds before the appearance of the bird, although we could perceive no sound that acquainted us of her approach.

As before-mentioned, the little nestlings sat upon an upper perch, but were not always near enough to the wires of the cage to be within reach of the parent when she appeared with food, which circumstance afforded an opportunity for a display of sagacity on the part of the robin before-mentioned, which we could not have credited if we had not seen it.

This little creature, who had for some time been an inhabitant of the cage, where he lived in perfect harmony with all his associates, had from the first shown great interest in the little Fly-catchers, and now, perceiving that the nestlings could not reach the offered food, but sat with their wings fluttering, and their mouths open, anxious to obtain it, flew to the wires, received the insects from the mother bird, and put them into the open mouths of the nestlings. This curious action was witnessed by ourselves and several friends, and occurred not once only, but was repeated every succeeding day, as often as his services were required ; he seemed as watchful for the return of the parent Fly-catcher as the little ones themselves, and always ready to act the part of carrier when necessary, but when he saw that his assistance was not wanted he quietly looked on.

The food brought by the Fly-catcher consisted generally, as far as we could judge, of honey-bees, living, struggling bees ; sometimes two or three were brought at once, and transferred, still alive and struggling, to the mouths of the little ones, by whom they were eagerly swallowed. On two or three occasions the robin was observed, on receiving the bee from the Fly-catcher, to pause with it in his beak, as if in a fit of absence, and then to swallow it himself, but, to his honour be it spoken, this was not observed to take place more than two or three times, whereas, his transferrence of the insect from the parent to the little ones was witnessed hundreds of times.

The young Fly-catchers were never seen to make any attempt at feeding themselves, nor did the robin give them any of his own food, namely, the German paste or worms, with which the cage was constantly supplied; neither do we remember that the little birds were ever seen to drink from the water fountain. They usually remained upon a perch, side by side, and at night nestled close together, with the robin beside them.

For above six weeks the parent Fly-catchers continued to attend the little ones, from four or five o'clock in the morning, at which time the window was purposely opened, until nearly dark in the evening; and the redbreast also remained unremitting in his attention to them, until the accidental death of one of the little brood induced us to give the two others their liberty, fearing that, if we kept them longer they would not become sufficiently able to provide for themselves before the period of their migration, and so be left to perish.

It is a question of some curiosity, whether the bees with which this little family was fed were really honey-bees, as they appeared to be, and we afterwards regretted that we had not ascertained the fact, by intercepting one of them and examining it; that they were alive and entire there is no doubt, and that they were swallowed also in that state is certain. Our belief that they were really honey-bees is strengthened by the animosity of cottagers towards this little bird, which has universally the credit of visiting their bee stalls and purloining the bees from the door of the hive. Another corroborating circumstance in favour of their being honey-bees is, that Fly-catchers abound in places where lime-trees are numerous, which trees are much visited by those insects, as we have observed, in some of the most wooded parts of Surrey, where the lime-tree and the Fly-catcher are equally abundant. In Surrey, also, the name of Bee-bird is commonly applied to this species.

The nest of the Spotted Flycatcher is far less remarkable for neatness of form and skilfulness of structure than those of many small birds, and must yield the precedence in these respects to the nests of the finches, the warblers, and even of the larks and pipits. In materials it most resembles the nest of the redbreast, although it is neither composed of so great a quantity of materials, nor are they so well put together. Green and grey moss, roots, straws, and dry grass, spider cots, etc., are the component parts, and so slightly arranged that the nest can hardly be removed from its resting-place without losing its form. The nest now before us, besides all the the materials mentioned, contains a few horse-hairs within, and without is interwoven with portions of the holly leaf, in a skeleton state.

The eggs of the Spotted Fly-catcher are usually five in number, mottled with reddish spots on a pale green ground; in some specimens the larger end is blotched with reddish grey. Some eggs of the Fly-catcher resemble greatly those of the redbreast, but are mostly smaller in size, and the markings are less regularly disposed.

Young Fly-catchers, before they leave the nest, are on the upper plumage greyish-brown, mottled with yellowish-white spots; beneath whitish, and their broad beaks are very conspicuous. When further advanced in plumage, that is, after their autumnal moult, there is but little difference between them and the adult, as may be seen in our plate, in which the upper bird represents the adult, and the lower the young of the year, sketched in September. The young birds leave the nest before they are well able to fly, and may be seen sitting side by side upon a branch, receiving food from their parents: we have seen a little family thus attended until dusk in the evening.

This species is said to be commonly met with all over England; we are disposed to think they chiefly abound in the more wooded parts, as their nests have been very often brought to us, when residing in a country of that description; but we have met with them far less frequently in situations where agriculture had deprived the surface of the earth of its more natural appearance of wood and heath, or where the nature of the country was barren and unsheltered. This is, perhaps, the cause of the Spotted Fly-catcher being more rare in Scotland than in Ireland. According to Temminck, this species is found in Sweden, and in Russia, in the temperate parts; it is also widely-diffused over other parts of Europe, as well as Africa.

In adult plumage the garb of the Spotted Fly-catcher is very simple and plain. The whole upper parts are hair-brown, inclining to grey; the quill and tail-feathers rather darker, as well as the tertials; these latter bordered with lighter brown. On the crown of the head the feathers have a dark brown spot along the shaft; the throat and centre of the belly are bluish-white; the flanks and under coverts of the wings tinged with yellowish-brown; the sides of the neck, breast, and flanks are streaked with hair-brown; the legs are short, and the feet small, and in colour bluish-black.

The young birds of the year differ little from the adult, except in the edges of the tertial feathers, which are rufous-brown, and spots of a similar colour occupy the tips of the larger wing-coverts. The beak is dusky, the base of the under mandible yellowish-brown, the inside and corners of the mouth yellow; the iris dusky.

The entire length of this bird is rather less than six inches; the wing measures three inches and a quarter; the tarsus seven lines, the middle toe and claw about as much.

There is no difference of plumage between the male and female, and the moult is said to take place but once in the year.

In form, the Spotted Fly-catcher is slender, and in its flight very light and buoyant.

The outline (fig. 40), represents the beak of the Spotted Fly-catcher of the natural size.

The egg No. 40 belongs to this species.

INSESSORES.
DENTIROSTRES. *MUSCICAPIDÆ.*

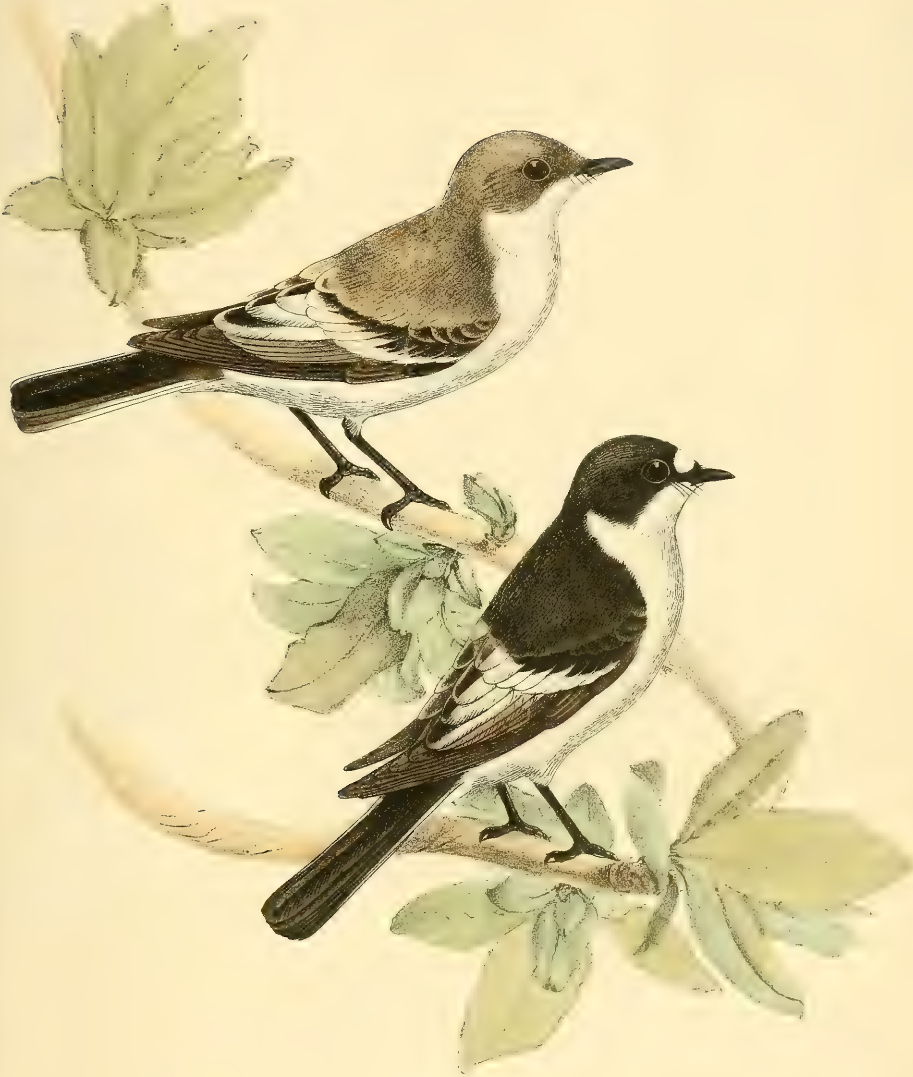
PLATE XLI.

PIED FLY-CATCHER.

MUSCICAPA LUCTUOSA.

THE PIED FLY-CATCHER, called also the Coldfinch, by Bewick and Selby, is an occasional visitant in Britain in the summer months, and in winter returns to its warmer quarters, in Italy, and along the borders of the Mediterranean, where it is very abundant from October until March. The supposition that the Pied Fly-catcher was a permanent visitor here, but only very rarely met with, is unfounded. Bewick gives, as usual, a very correct and beautiful representation of the male bird, and it is to be regretted that he has not also figured the female of this species, since the descriptions given of it by different ornithologists do not agree in every respect. We figure, in our plate, the male bird in adult summer plumage, and above it a female of the same age.

This Fly-catcher moults twice a year, which causes some difference in the colours of its plumage; and, as there are other species which bear much resemblance to it, care should be taken to consider the season when a specimen is obtained, although the measurement of the wings will at any period decide the question; the wings of our Pied Fly-catcher being shorter, by half an inch, than those of the *M. albicollis*, a species nearly allied, and equally abundant on the Continent.



We consider it not improbable that the M. albicollis will, sooner or later, be met with in Britain, as, according to Temminck, that species is the most common in France. The present distinction given may enable our fellow countrymen to judge, at a glance, to which any specimen belongs. When the wings of the M. Luctuosa, or Pied Fly-catcher, are closed, they cover about one-third of the tail; but in the M. albicollis the wings, when closed, cover two-thirds of it.

The entire length of the Pied Fly-catcher is five inches and a half, and about nine inches and a half in expanse. The beak measures four lines and a half, is broad at the base, and slightly arched towards the tip; the nostrils are round, open, and covered with bristling feathers; and the corners of the mouth are fringed with strong black bristles. The iris is dusky, or dark-brown. The legs are slender and black in old birds, in young ones brownish slate-coloured. The tarsus measures eight lines, the middle toe, including the nail, seven lines and a half; the hinder toe and claw five and a half.

The adult male, in spring plumage, is as follows:—On the forehead are two connected round white spots, and all the under parts, from the chin to the under tail-coverts inclusive, are pure white; the top of the head, cheeks, back, shoulders, and upper tail-coverts are jet black; the nape of the neck, and rump, greyish-black; the lesser wing-coverts and primary quill-feathers are dusky; the latter quill-feathers, as also the secondaries, have a little white towards their roots, which are nevertheless entirely covered by the wing-coverts. On the first of the tertials this white extends further, and the three latter are entirely white, with a black spot on their tips, which is only partially on the inner webs. Directly above these feathers, namely, the tertials, the larger wing-coverts, have one web of their tips white, which, together with the before-mentioned, forms a large white space or spot on the wing. The tail is black; the outer tail-feathers have white outer webs, which colour extends over the inner web towards the root of the feather, but becomes lost on the outer edge before it reaches the tip of the feather.

The young male has the spot on the forehead smaller; the wings have less white, but the tail more, as the second and third side-feathers have a white edge to the basal half of the feathers; the upper plumage is slate-coloured.

In the month of July these birds begin to moult, and by the end of August they wear their perfect autumn plumage. If specimens are obtained during the moult, the black feathers and the new grey ones are prettily intermixed.

The adult male, in autumn or winter feathering, has the wings and tail as in spring, but all the upper plumage is slate-coloured instead of black; all the under parts are white, but tinged with yellowish-brown on the sides; the forehead is dull white, and the cheeks dark ash-brown, spotted with white.

The second moult takes place during their absence in warmer climes, late in the spring. This does not extend to the quill-feathers and tail. Sometimes specimens that arrive in May have not fully completed their moult, and the greater number hardly wear their perfect spring plumage, or, as it is termed, their bridal garments, one month before they begin to moult again. Thus, the differences occasioned by age and sex in this species have given rise to them any varying descriptions of different ornithologists.

The plumage of the adult female in spring resembles much that of the young male, and can only be distinguished by having less white on the wings. The brownish ash-colour of the upper plumage is always somewhat paler or browner, and the under parts dirty white, and tinged on the throat and upper part of the breast with brownish-yellow. When they attain old age their plumage darkens more on the upper parts, and the forehead becomes dirty white.

The young birds of the year are principally known by their smaller size, and their plumage is of the following description. The base of the beak and soles of the feet are reddish-ash; throat, and fore-part of the neck, yellowish-white; from the lower corner of the beak descends a faded greyish or dusky streak along the sides of the neck. The middle of the breast, the belly, and under tail-coverts, are white; the chest dirty yellowish, and the sides tinged with yellowish-grey; the thighs are spotted with grey; the cheeks and forehead are dirty pale brown; all the upper parts brownish-ash, strongly tinged with brown on the top of the head, shoulders, and back; the lesser wing-coverts are like the back, the larger dusky, edged with brownish-ash, and dull white tips; the tertials are of the same colouring, but without white tips; the three last are edged with dull white, and have a spot of the same near the root; the tail, including the latter upper coverts, black, dusky on the sides; the outer feather white on the outer web, and the same extending to the root for half its length on the inner web; the second feather has a white edge for half its length from the root, and the third frequently an indication of white in the same place.

The young female birds vary very little from the young males; they are less clean on the under parts, browner on the upper, and have still less white on the wings.

The young birds of the year, before the first moult, resemble the young of the spotted Fly-catcher very much; but their smaller size, and other markings of the tail-feathers distinguish them plainly. They are brownish ash-coloured on the upper parts, sprinkled all over with dirty white drop-shaped spots; the breast spotted with brown; wings and tail as already described; the iris brownish-ash, but the colour of the legs lighter, like those of the autumnal moult. Between the male and female there is no distinction at this period.

The Pied Fly-catcher is found over most parts of Europe, and is consequently a well-known species, although it is most abundant in the more southern parts, as Greece, Italy, the south of France, etc. ; more to the north, they are found only during the summer months, that period when the winged insects that constitute their food are abundant. The arrival of the males is generally found to precede that of the females by a few days, in countries where they are regular summer visitants.

The favourite haunt of this bird is woodland, in the neighbourhood of lakes and rivers, the chief localities where insects abound. During very hot and dry weather they resort to the tops of large trees, where they find insects swarming, and, unlike the preceding species, occasionally take them from off the leaves.

In spring and autumn they descend to smaller trees and shrubs, but are very rarely seen upon the ground. The Pied Fly-catcher is a scarce bird in England, and its appearance is chiefly confined to the counties of Cumberland and Westmoreland, and, according to Selby, the West Riding of Yorkshire ; in other parts it is rarely seen. It appears probable, that the few that visit England are but stragglers from the outskirts of the flights that annually migrate to and from the north of Europe.

The Pied Fly-catcher builds in holes in large trees, particularly in the oak, the beech, and the aspen. The nest is sometimes placed in the deserted hole of a titmouse or woodpecker, which is not wider than is sufficient to allow their bodies to pass through ; where the holes exceed this measure these birds are said to close them up with clay to the size required ; and the height chosen is never less than six feet from the ground. Sometimes a nest is found placed on a broad branch close to the stem, or on broken stumps of trees; and, in such cases, they are not unsightly, nor carelessly put together, being built of moss and roots on the outside, and lined with feathers, wool, and hair. When the nest is placed in a hole, the construction is very inferior. The female deposits five or six bluish-green eggs. Incubation does not commence before June, and the young birds are hatched in about fourteen days, during which time the male often relieves the female in her task.

The egg No. 41 belongs to this species.

INSESSORES.
DENTIROSTRES. *LANIADÆ.*

PLATE XLII.

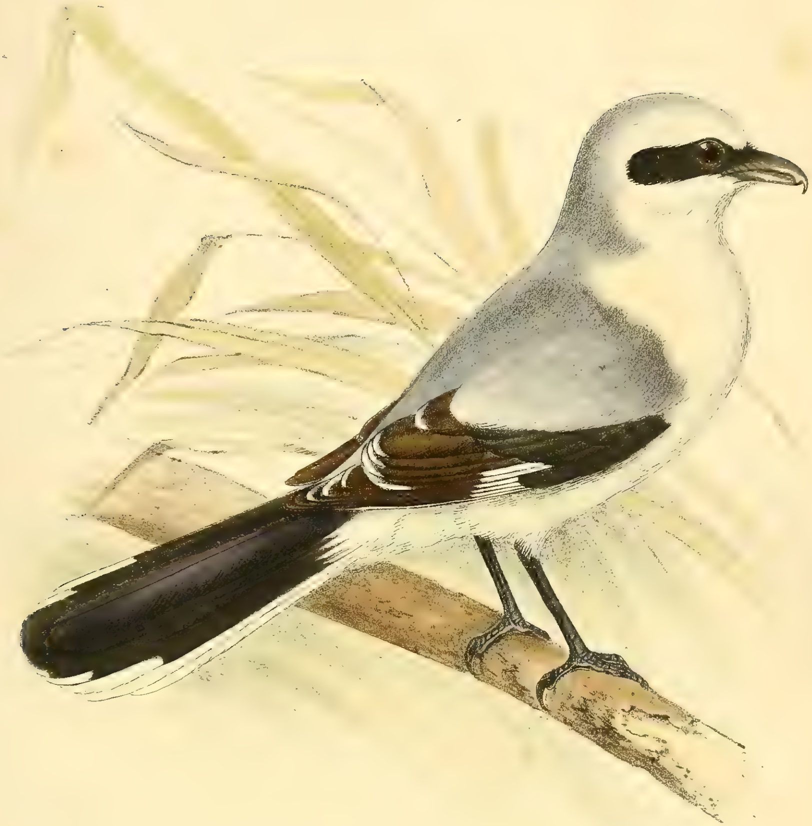
ASH-COLOURED SHRIKE.

LANIUS EXCUBITOR. (*Linn.*)

THE Butcher-birds are by some authors ranged immediately after the birds of prey, with which some of their qualities ally them; by others, they are located among the insect-devouring tribes; others again, place them at the head of that section. It is an intricate and difficult question to determine which position is the most natural and proper, and one, besides, that would, if ascertained, hardly repay the labour of investigation.

Five species are recognized as belonging to Europe, of which three are periodical visitors with us; many others are found in other parts of the world, and all are distinguished by the courage and ferocity they exhibit in the capture and destruction of their prey, which is effected, not like the Raptores, by means of their claws, but by their beak. Small birds, reptiles, and insects, form their food; and their habit of hanging up on a thorn their prey when taken, and then dissecting and tearing it in pieces, is supposed to be the origin of their generic name.

The Laniadæ are connected with the tribes with which we find them arranged by Temminck, Selby, and other authors, by their agreeable song, by their insect food, by their manner of flight, and the kind of country they frequent.



They build their nests in woods and thickets; their flight is irregular, and their tails incessantly in motion.

The plumage of the adult male differs from that of the female, and the moult in most of the species takes place but once in the year. Like the thrush, which resorts continually to the same sacrificial stone on which to immolate the devoted snail, the Shrike is said to return again and again to the same thorny bush for the purpose of transfixing his selected prey.

In the genus Lanius the bill is strong, straight at the base, compressed at the sides, the point strongly hooked and toothed; base of the bill beset with strong hairs, directed forwards, partly covering the nostrils, which are basal, lateral, oval, and partly closed. The third and fourth feathers are the longest in the wing.

The Ash-coloured Shrike is the largest of its class that visits our country; it measures full ten inches in length from the tip of the beak to the extremity of the tail, and fifteen inches in expanse; its wings are very short in proportion to its tail, and, when closed, cover only one third of it. The beak measures in the arc three-fourths of an inch, and is black in colour; the iris is dusky; the tarsus measures one inch and a quarter, and the middle toe one inch, including the claw, the hinder three-fourths of an inch; the soles of the feet are greyish, and the base of the upper and under mandibles bluish in the summer.

The throat, neck, breast, belly, and vent, are white. From the beak, through the eyes, runs a black band towards the ears, over which is one of pure white, from the forehead backwards, which becomes lost in the ash-colour of the head and nape. The forehead is dirty-white; the crown of the head, neck, back, and rump, are ash-coloured, the tail-coverts a little paler; this is also the case with the shoulder-feathers. The lesser and primary wing-coverts are black, the latter tipped with white; the primary quill-feathers are black towards the tip, with the basal half white; the secondaries only white at the root, and black in the remaining part; the tertials are black, with white tips. The two middle tail-feathers are black, with a purple gloss, the three next with white tips and roots; the two outer feathers on each side entirely white. The female has all the colouring duller, particularly the breast, which is marked with pale, ash-coloured undulating bars; the white tips on the wing-coverts and tertials are not so pure; and it may here be remarked, that the white tips of the wing-feathers chiefly wear off before the autumnal moult. The very old female nearly resembles the adult male. The young birds are much like the female, but the forehead, back, and shoulders, are tinged with yellowish-brown, and bear, also, indications of waving lines, which are, however, closer together on the breast and sides than in the adult female. All the tips of the feathers are yellowish, and there is less white on the roots of the tail-feathers: the white on the tail is also less. The beak is grey with a black tip, and the corners of the mouth white; the iris brownish-ash.

Very old birds have, in some specimens, an appearance of bars upon the black feathers of the tail, particularly when those feathers are new. A variety has been described whose feathers were entirely white, tinged with rich yellow. The moult of these birds takes place in autumn.

The Ash-coloured Shrike is an occasional winter visitant with us, and known in most parts of Europe and North America, with exception of the most northern parts. This Shrike is usually observed to visit us in spring or in autumn. We have seen a pair of these birds late in the autumn of 1837, in the neighbourhood of Ember Court, in Surrey, where they remained for at least three weeks, showing themselves either on the ground in a meadow, or on the top of a tall oak or elm-tree. It was not possible to get within shot of these birds, although every attempt was made that we could devise. In the autumn of 1840 we again saw one of this species near Pains Hill in the same county, in a birch-tree by the road-side. From the momentary observations we could make, it seemed to be very restless, and not long in one position. The beautiful grey of the upper plumage in this species is well set off by the black wings and tail, and the black band through the eye, by which they are rendered very conspicuous objects, and their spread tail, when on the ground, looks exceedingly majestic.

This bird is the most daring of its size, and it is said that he does not even allow one of the eagle tribe to fly by his roosting-place without pursuing him with cries and menaces. During the breeding time he will not permit a rook or crow to approach his nest. When on the wing, this Shrike does not fly rapidly, although with very quick motion of the wings, and proceeds in the same manner as the chaffinches. The call of this bird sounds like the words *shack*, *shack !* and *truewee*, is one of its spring notes. It is also said to sing very pleasingly a sort of warbling song.

This bird also utters a cry of distress, to induce some other bird from curiosity to come within its reach, for the purpose of catching it.

The Ash-coloured Shrike is easily tamed, even when taken in an adult state, and may be taught to catch small birds. When caged, they must be placed alone, or they would infallibly devour their neighbours.

The food of the Ash-coloured Shrike consists of beetles, grasshoppers, small frogs, birds, and mice, the latter of which constitute almost entirely its winter food.

Although he consumes many a small bird, they seem to be very little afraid of him ; where the Shrike is more plentiful than with us, he has been seen among a flock of sparrows basking in the sun, and it seemed as if the sparrows had no consciousness of his usual habit of putting an end to them. The mode of taking his prey is generally when perched or on the ground, when he takes hold of them both with his beak and claws: he takes them also on the wing. To show the courage of this bird it need only be stated, that he pounces upon thrushes, and takes even partridges when they are wounded or weak. When he has mastered his prey he does not stand upon it, but thrusts it between two stones, or in some narrow place, or fastens it on a thorn in a bush for the purpose of consuming it. During his migration he may be seen perched on a lump of earth in a field, or hovering in the air and descending quickly when he sees his prey in a promising position.

In the summer the food of this species consists principally of beetles and frogs, which has been proved by their disgorged pellets; while in the winter they principally eject feathers and mouse-hair. When they carry a mouse or bird of any size a certain distance, they exchange their load from the beak to the claws and back again, for the purpose of resting these members alternately, until they have reached their favourite bush.

The places most frequented by the Ash-coloured Shrike for the purpose of breeding are woods near pasture land. The nest is either placed in a tree of some height or in a branch of a wild fruit-tree, or in a tall maythorn bush, and appears very skilfully put together. The materials chosen are hay, stalks, twigs, heath, ground and tree-moss, and the whole is lined with wool and hair. The five, six, or seven eggs are hatched in about fifteen days.

The young birds have the first feathering greenish on the back.

The egg No. 42 belongs to the Ash-coloured Shrike.

The outlined head (fig. 42) is of this species, of the natural size.

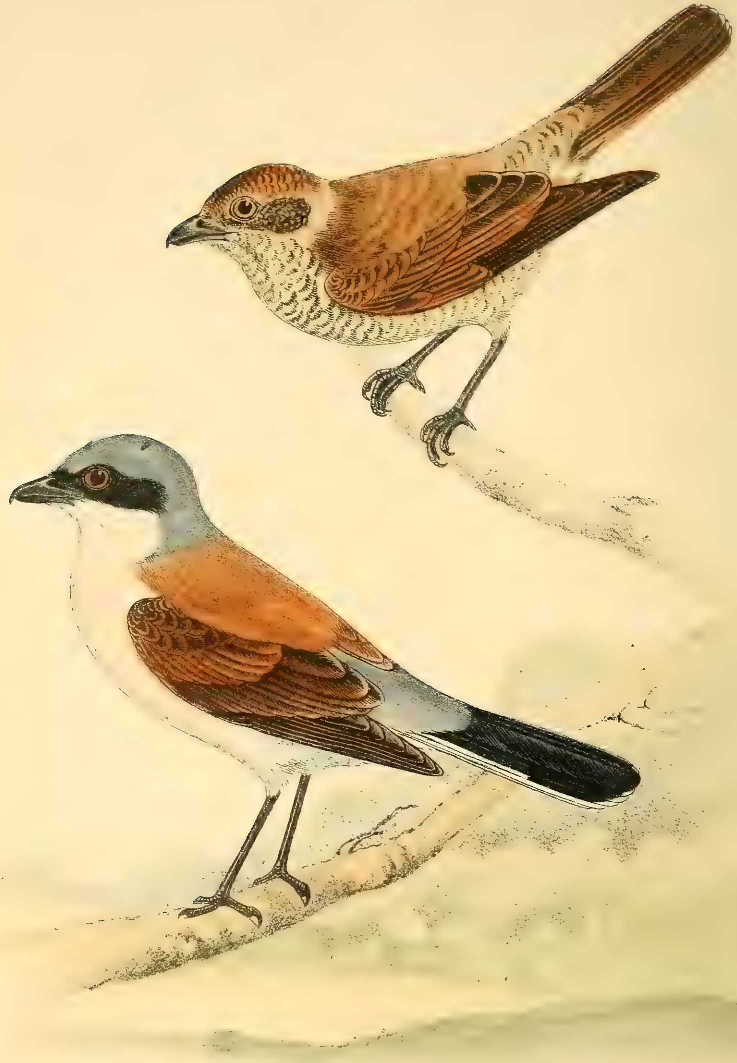


PLATE XLIII.

RED-BACKED SHRIKE.

Lanius collurio.

The most prominent characters of the Red-backed Shrike, which it shares in common with its family, have been already described under the foregoing article, namely, its rapacity, and its cruel mode of feeding on wounded or half-killed prey. Thus far we speak of its well known faults. It is also just to mention, as redeeming good qualities, the affection that exists between the male and female of this species, and their great attachment to their young. Of the former we had an opportunity of witnessing an instance, which we think on this account deserves noticing. In the month of June 1837, a male Red-backed Shrike was caught in a garden by a cat; the gardener, who saw the circumstance, succeeded in rescuing it from the animal the very moment it happened, in time to save its life. It was put into a cage and placed in a sitting-room in the house close by. There were several persons in the room at the time; but notwithstanding their moving about, the female, its companion, came in at the window, settled on the cage, and was secured by one of the party, without attempting to fly away; they were subsequently both placed in the same cage.

Respecting their attachment to their young, we have frequently remarked that the female will hardly fly from the nest when she has eggs ; and if disturbed after the young are hatched, both parents remain either in the bush that contains the nest or on a neighbouring tree until the danger is past, and, to draw off attention from the spot, they keep moving in opposite directions, uttering all the while their alarm-cry. We have seen them help the young ones out of the nest for the purpose of hiding them in the thicket beneath, and the moment they have reached the ground not another chirp is heard from the nestlings, which have apparently received a signal to be quiet, although the parent birds, perched in a tree at a little distance, keep up a continual clamour.

This species is of frequent occurrence in the well-wooded districts of some of our southern counties, where it has often come under our observation, and where we have obtained many nests. In some parts of Surrey the eggs are so common as to be found strung among other ordinary eggs, in the possession of every little village urchin. Among the nests that we have met with we have observed much difference in size, not only externally, where they are naturally more or less bulky, according to the locality in which they are placed, but in the interior formation, so as to induce a belief that the larger nests might be those of the Grey Shrike (*Lanius excubitor*). The eggs also vary very considerably, both in size and colour : in some the surface is dull and chalky, others possess considerable polish, but those from the same nest usually resemble one another tolerably in all these particulars. One set in our possession has the ground colour greenish-white, with a zone of large blotches round the centre, varying from ash-grey to umber-brown, and minutely spotted over the rest of the surface with bistre. Another set has the ground colour flesh-red, the zone of large spots greyish-blue, and the rest of the surface sprinkled with dark red-brown. The one figured in the plate is a specimen of remarkable beauty, in which the spots are entirely confined to the zone or wreath. Another nest, taken in Surrey, contains four eggs, whiter than usual in the ground colour, and much larger in size, all measuring above an inch in length ; these we are disposed to think are very probably the eggs of the Grey Shrike; but the fact of their remaining in England to breed is not yet ascertained, although it is very possible, as they are known to do so in almost all the central parts of Europe.

All the eggs of the Shrikes, whatever may be their colour, retain, however, a peculiar character in their markings, and cannot be mistaken for any other family.

The nest of the Shrike is a very well built structure, composed, externally, of green moss, roots, and dry grasses ; next to these is an inner frame, or basket-work, of stout grass-stalks, interwoven with wool, and the lining, in all our specimens, is entirely composed of fine fibrous roots; we do not find the lining of hair that is usually attributed to them. The nest, when complete, is both deep and capacious, as well as firm and thick, and the upper edge, or border, projects a little over the inside of the nest. The nest now before us is bound round the edges with one of the long trailing branches of a species of potentilla, that grows in great abundance on some parts of the shingly borders of the Thames. The nest is usually placed in a hedge, or thorn bush; but concealment does not appear to be particularly sought for.

The food of the Red-backed Shrike consists of frogs, lizards, mice, and small birds; also large insects, such as grasshoppers, beetles, and dragon-flies. These last-mentioned insects sometimes afford considerable sport, and sell their lives dearly, their peculiar flight affording great protection from their more powerful enemies. We once witnessed a very prolonged chase, of which one of these insects was the object, and, in all probability, it ultimately escaped from its pursuer. Passing, one day early in September, along a piece of water, we observed a large dragon-fly flitting over it, of the kind commonly called a horse-stinger, and about four inches in length. While watching the sudden turns and beautiful evolutions of the insect, we saw a kingfisher in pursuit of it, and lost sight of both among the tall reeds. After having walked for some time about an adjoining field, we returned by the same way, and found the kingfisher still flying over the rushes in pursuit of the dragon-fly. The kingfisher's mode of attack was by darting in a straight line at the insect, which seemed to escape by turning quickly aside.

The Red-backed Shrike is well known all over Europe, in North America, and Africa; in our climate it is a summer visitor, retiring to warmer countries during winter. The chosen locality is underwood, particularly where thorn bushes, and larch and birch trees abound; among trees of larger size it is seldom found.

The manners of the Red-backed Shrike are much like those of the former species, and, in addition, they flourish their outspread tail to the right and left when excited, which appears as if they swung it in a circle. They sing very frequently; their note is pleasing, and they are often heard to imitate the notes of other birds. Their food, which has already been described, consists chiefly of insects of all kinds, which they watch for perched on a dead branch of a bush; and as soon as they perceive any they fly after them, and return again and again to their station. The present species is by far more cruel than the Grey Shrike or Wood-Shrike; they not only consume young birds, but also old ones, which they obtain in divers manners. We have an instance of a male bird, dragging young pipits out of their nest. Their habit of fastening their prey on a thorn is well known; also, that they are not satisfied to destroy what they want immediately, but stock their larder for bad weather, which is the reason why several unfortunate victims may be sometimes found in this cruel situation on the divers thorns of the same bush; if birds, their brains have mostly been consumed.

The moult of this species takes place late in the autumn, after the birds have left us, and they return in their new feathers.

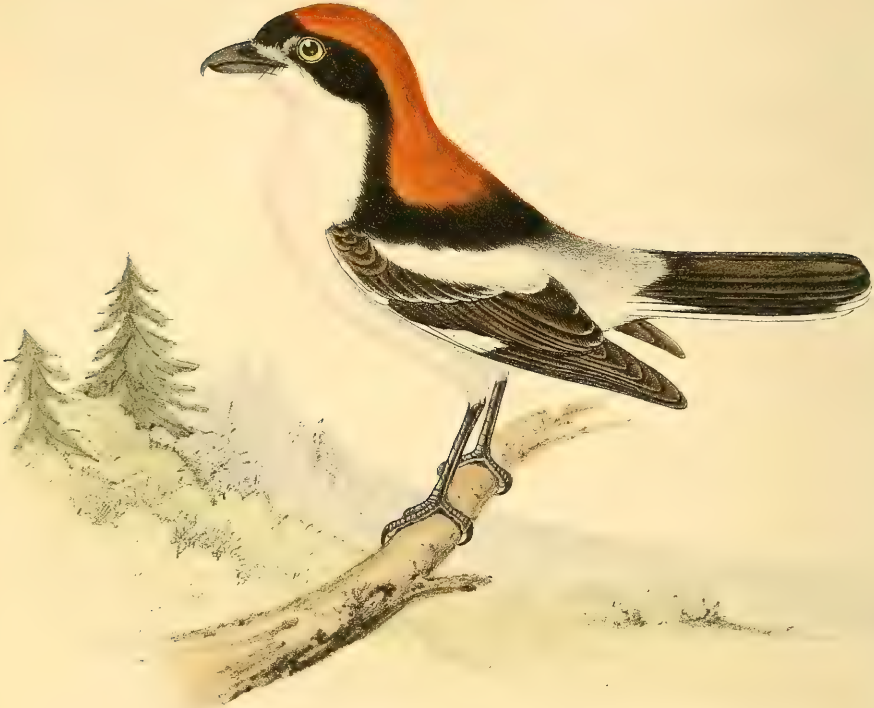
The entire length of the Red-backed Shrike is seven inches; the wing, from carpus to tip, three inches and a half; the tail measures rather more than three inches, and extends an inch and a half beyond the tips of the folded wings. The legs are long and slender; the tarsus measures nearly an inch; the feet are small; the beak is very strong and thick, hooked, and notched near the point.

The male, female, and young of this species differ considerably in their plumage. The adult male has the beak and legs black, and a black band crosses the forehead above the beak, and extends above and below the eye towards the nape. The rest of the head, the nape, and tippet, are fine blue-grey; the lower part of the back, and upper coverts of the tail, the same. The larger and lesser wing-coverts are rufous, and the same colour extends across the back; the rest of the wing is dusky, with a border of rufous on the tertial feathers. The throat and sides of the neck are white; the breast and all the under-parts pale yellowish-pink; the two central feathers of the tail are entirely black; all the other feathers are white at the base, and black toward the end of the feather, the black portion decreasing on each feather, so that the outer feather on each side retains but a single dark spot; all these are tipped with white. The eyelids are black, and the iris of the eye reddish-brown.

The female is ferruginous-brown on the upper parts, tinged on the nape and rump with ash-grey; under parts greyish-white ; the feathers bordered with a dusky semicircular line. The young of the year nearly resemble the female, but some of the feathers on the rump have a narrow dark border.

The females and young resemble the young of the Wood-Shrike, which, however, may be distinguished from them by the white spot on the wing, which the present species never shows, and which, in all stages, exists in the Wood-Shrike.

Very old females nearly resemble the male in plumage.



N. 44.

INSESSORES.
DENTIROSTRES. *LANIADÆ.*

PLATE XLIV.

WOOD-SHRIKE.

Lanius rufus.

This beautiful species of Shrike is very rarely seen in England, and has not many years been included among British accidental visitants. We have once, only, had the pleasure of seeing it alive in a wild state; this we met with in the richly-wooded part of Surrey, between Hatchland, the estate of Holme Sumner, Esq., and Guildford. The red colour on the upper plumage first attracted our notice to the bird, which sat within four or five yards of us on a thin branch of an oak, where it remained for nearly a quarter of an hour, and allowed us to have a full and distinct view of it; it did not appear at all alarmed at our near approach, but took very little notice of us. Its attitude and general appearance we have represented in our plate.

The Wood-Shrike is found in most parts of Europe, from Sweden southward, and inhabits Africa, where it appears to be more generally known than elsewhere. We rather suspect that the vicinity of certain trees in any given district may attract this bird, and we are strengthened in this supposition by the Wood-Shrike being said to construct its nest in the branch of an oak, and to form it of tree moss, such as abounds on oaks, namely, the crisp white moss and the soft bright green; besides, the bird seen by us was in such a locality, where young oaks constitute the greater part of the surrounding trees: the place was also sheltered and hilly.

The Wood-Shrike breeds in temperatures similar to our own, and may, perhaps, frequently visit this country, although the anxiety of landholders to preserve game excludes the general naturalist from seeking them where they are most likely to resort, namely, pheasant preserves and young plantations, which are not visited during the breeding-season, except by the keepers.

The nest consists of fibrous roots and twigs, intermixed with tree moss and dry grasses, and is lined with wool, feathers, and hair; the eggs found in them are generally five or six, in shape and colour like the one represented in our plate, No. 44. Both parents incubate them, and the young are hatched in a fortnight. The young birds are reared with beetles and other insects.

The food of the adult consists chiefly of the larger insects, and sometimes young birds; they take their food either from the ground or on the wing, as soon as they perceive it from their watching-place. Worms, grubs, and other larvæ of insects are also sought by them.

The character of the Wood-Shrike is not very amiable as regards his neighbours, whom he pursues with cries and menaces; the smaller birds stand in awe of him, and the larger, among which are reckoned pigeons, magpies, etc., are pursued and tormented by him.

His song is pleasing, and, in common with other branches of his family, he imitates the songs and call-notes of other birds very exactly.

The Wood-Shrike measures eight inches in length, and thirteen in expanse; the wings, from carpus to tip, three inches and three quarters; the beak is six lines from forehead to tip, fringed at the base with stiff hairs, and possesses a prominent tooth near the tip. The tarsus is eleven lines in length.

The general appearance of this species differs much from that of the other Shrikes; the plumage of the adult male is as follows: the beak is bluish horn-colour at the tip, and flesh-coloured at the base, the legs slate-coloured, the iris pale-chestnut. The feathers round the base of the bill are white, as are all the under parts, and the scapulars of the wing; the rest of the wing is dusky, with the exception of the bases of the larger quill-feathers, which are pure white, forming a spot that at all ages distinguishes this species; the greater coverts are also narrowly tipped with white; the lower part of the back and rump are ash-grey. The top of the head, nape, and upper part of the tippet, are bright-chestnut. The forehead, lore, and ear-coverts, are black, which colour extends to the shoulders in a broad line, and covers the back; tail dusky, some of the outer feathers tipped and bordered with white. On the breast and belly the white is beautifully tinged with pink.

The female is reddish-brown on the upper part of the body; the under parts all soiled-white, all the feathers transversely rayed with brown. The young birds of the year have the iris greyish yellow.

INSESSORES.
DENTIROSTRES. *MERULIDÆ.*

PLATE XLV.

DIPPER

Cinclus aquaticus.

> "The bird
> Is here, the solitary bird, that makes
> The rock his sole companion. Leafy vale,
> Green bower, and hedgerow fair, and garden rich
> With bud and bloom, delight him not ;—he bends
> No spray, nor roams the wilderness of boughs,
> Where love and song detain a million wings
> Through all the summer morn—the summer eve :—
> He has no fellowship with waving woods,—
> He joins not in their merry minstrelsy,—
> But flits from ledge to ledge, and through the day
> Sings to the Highland waterfall, that speaks
> To him in strains he loves, and lists
> For ever."*

In these lines the favourite locality and the retired habits of the Dipper are well delineated, and in such scenes it is most frequently met with ; there its large mossy nest is constructed, among the fissures of the rocks, or sheltered by a ledge, and usually overhanging a mountain-stream, in whose waters its food is procured. By Selby, who is well acquainted through personal observation with this species, it is compared in its motions and manners to the wren, which it resembles

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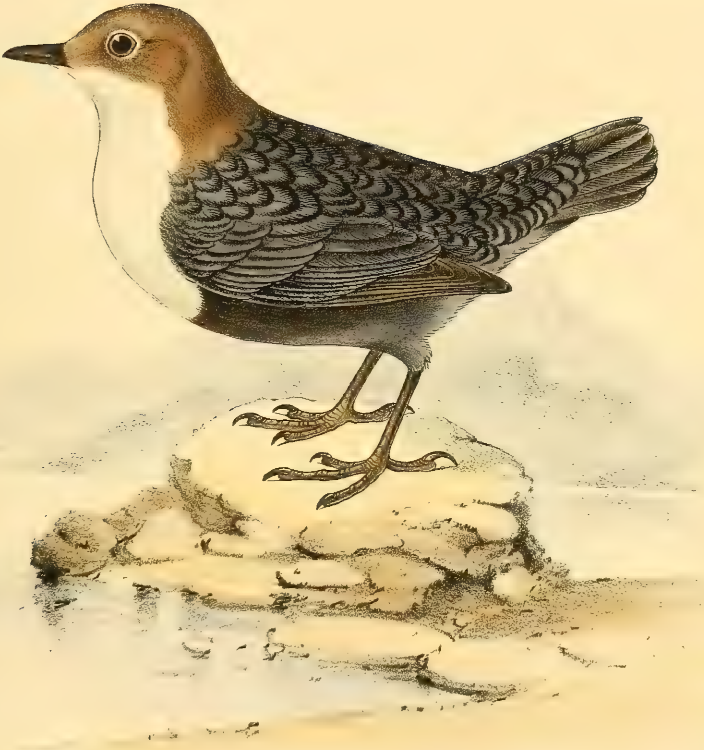
* From the Saturday Magazine, of Dec. 11, 1841, where they appeared under the name of "Carrington."



Pl. 45.

in its habit of erecting its tail, in its song, its early breeding, and the appearance, form, and materials of its nest.

This species is a constant resident in Britain, locally distributed in accordance with its peculiar habits, and changing its quarters as the changes of the seasons may require. "During the severity of winter," says Selby, "it leaves the smaller mountain rivulets, then becoming frequently choked with ice and snow, and resorts to the larger streams which remain open, and afford a plentiful supply of food."

Scotland, Wales, and the north of England are the parts of Britain the most frequented by this species; it is not, however, entirely confined to these, it has occasionally been met with in quiet places in the southern counties of England. We have ourselves seen it by the side of the Mole, midway between Cobham and Esher bridge. This bird sat perched upon a lump of dried clay, close by the water side, where we observed it for some minutes; it was motionless, and in the hope of meeting with it again in this place, where we were not before aware of its being found, we were careful not to disturb it, and consequently did not see it fly. The locality was the best possible for this species, the bank steep and broken, well covered with dark foliage, and very lonely, as it belongs to the preserves of Claremont.

The nest of the Dipper, according to Montagu, is very large, with only a small opening in the side for ingress and egress. It is composed externally of moss, usually selected, for the purpose of concealment, from the immediate vicinity of the spot, in order to assimilate it with the locality chosen. One described by Montagu, was so well concealed in this manner that the existence of the nest was only detected by the old bird flying in with a fish in its bill. In this nest the young were incapable of flight, although nearly full-feathered, and, on being disturbed, fluttered out, and dropping into the water, instantly vanished, but in a little time made their appearance some distance down the stream.

The eggs of this species are about the size of those of the song-thrush, pure white in colour, and in number varying from four to six.

The food of the Dipper consists chiefly of the spawn of fish, and small fry, water insects, and their larvæ.

The pied and well-marked colours of this bird, although plain, render it a conspicuous object. The upper part of the head and neck are umber-brown; the chin, sides of the face, and breast, pure white; a circle of white feathers surrounds the eye; on the belly, below the white breast, is a band of dark reddish brown; all the rest of the plumage is greyish-black; the feathers on the back, scapulars, and upper tail-coverts are bordered with a fringe of a different texture from the centre of the feather, so that in different lights the fringe appears sometimes darker and sometimes lighter than the feather itself. The beak is black; the iris hazel; the legs greyish-dusky.

The female nearly resembles the male, but the brown colour of the head is darker, and the white breast not so pure in tint. In young birds the head and neck are grey, and the division between the white and brown on the under parts imperfect.

The entire length of the Dipper is seven inches and a half.

The egg No. 45 belongs to this species.

END OF THE FIRST VOLUME.

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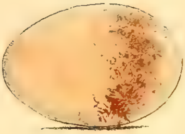

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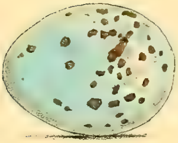

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